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DIAN EDUCATION.

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We,—we have chosen our path
Path to a clear-sighted end,
Path of advance!

VOL. III.] DECEMBER, 1904. [NO. 5.

EDITORIAL NOTES.

WHEN Sir Andrew Fraser described his scheme for a model college and school at Ranchi, he said that he did not believe in exclusive institutions for particular classes. "In England the sons of the peer and the merchant, the doctor and the soldier, the barrister and the squire are educated together. What a zamindar's son requires is to be so educated as a gentleman as to develop his mind and broaden his sympathies. To be educated at a purely class institution will have the contrary effect." Sir Andrew's idea was to institute a college where the sons of professional men of all kinds, communities, and religions may mingle together. The Ranchi college, in short, is to be a kind of Eton. But Eton is after all only a school, and the Ranchi scheme aims at combining school and college. It is to be an Eton and an Oxford in one. It is in this respect that we think it most open to objection. A school or college attended only by students of the wealthy and noble classes is apt to beget or to strengthen class prejudices, to foster snobbishness, to put the students out of touch with their countrymen of humble rank and smaller means. This tendency is checked in the scholars of Eton and similar institutions by the fact that the majority pass from school direct to Oxford or Cambridge, where, though they may join a college mainly frequented by men of their own rank and means, they are brought in close contact with others of different and inferior social position. At an English University all ranks are levelled, and the brilliant scholar or the powerful athlete, however poor or humble in origin, takes as high, perhaps a higher, position than the aristocrat. At Ranchi the cost of living and education will prohibit the attendance of any but the sons of wealthy men, unless a number of open scholarships are instituted. Sir Andrew's scheme will broaden the sympathies of the students only within narrow limits. It will be better than an institution for a particular community, but cannot produce the same broadening effect as a college open to all the world. It will never become a real microcosm, a little world in itself, where students mix with all the kinds of men they will meet in the larger real arena of life.

* * * *

The article of Sir Thomas Raleigh, from which we quote extracts in "Our Contemporaries," is important, as coming from the pen of one who helped to construct the Universities Act. Sir Thomas said that, of the three kinds of colleges in India, the condition of Government colleges depended on Government, which must assume the responsibility of making them models. The process of improvement would be gradual owing to the difficulty of finding money. This warning to critics who assert that Government does not realise its responsibility is timely, but the recognition of the difficulty must not be allowed to silence criticism. Government undoubtedly require to have the needs of their colleges constantly and emphatically pressed upon them. An article, obviously written by a student, on the Muir Central College, Allahabad, enumerates, doubtless with the usual exaggeration, a number of deficiencies in that institution, and we make bold to say that there is no Government college in India that does not need a hundred changes and additions before it could be called in any true sense a model college. Sir Thomas recognises both the value and the weaknesses of colleges under native management. He attaches a high value to the work of missionary colleges, and thinks that the present time is one in which Christianity is making a great turning movement which will at least weaken the resistance of Hinduism and Mahomedanism. We are inclined to doubt whether the progress of education among the natives of India really makes for the spread of Christianity, at any rate in the way the missionaries desire. Statistics seem to show that conversions prevail most among the poor and ignorant. That education is purifying, and will more and more purify, the religions native to India is undeniable, and educationalists may well be content with helping to raise when they cannot change the moral and religious ideals of those in their charge. Sir Thomas alludes briefly to the need of more intimate association between students and their professors, if the latter are to exercise any real moral influence, and to the unwillingness of some Hindus to admit the practicability of realising in India the corporate life of English Universities. That it can ever be entirely realised we do not believe, but with the weakening of caste-prejudices, especially in the great towns, and willingness on the part of the professor to co-operate much may be done. Only the conditions must be favourable, and at present the situation and construction of many college buildings is such as to prohibit or discourage such association of pupil and teacher.

* * • •

Events in the Far East have directed attention to Japan, and especially to its educational system, for the unparalleled rapidity of the development of that country and its success in the war naturally prompt curiosity about the means by which these have been obtained. The report of Professor Sharp of Elphinstone College, Bombay, who has been deputed to examine the Japanese system of education, will be, therefore, of peculiar interest. Meanwhile a letter in the London *Times* and a circular published by the Indo-Japanese Association of Tokio in the Madras *Educational Review* supply some interesting information. It has been suggested that Japan, as an Oriental country which has learnt all that Europe can teach, affords young men from India opportunities of learning far more suited to their capacity and genius than are obtainable at the Universities of Europe, and that a good technical education in particular may be obtained there. Not many Indians, however, seem at present to have availed themselves of these opportunities, some fifteen only being said to be at Tokio, of whom eight are Nepalese. Nor does it appear that the Japanese welcome Indian students very heartily. They not unnaturally feel that their own students, who are so eager to learn, have a prior claim, and that next to them the students of Korea and China should be encouraged in order that Japanese political influence may be strengthened in those countries. In the higher technical school at Tokio, Indian students are charged double fees, and, in general, the preparation necessary for Indian students to study with success in Japan seems to make it doubtful whether it is worth their while.

The Imperial University is situated in an outlying suburb of Tokio. Its educational work is in the hands of 118 professors, 55 assistant professors, and under them 122 assistants. The academic year consists of three terms in spring, summer, and autumn, of 105, 84, and 94 days' length, respectively. A notable feature mentioned by the writer in the *Times* is the system of loan scholarships by which the college or a private donor lends to students who cannot pay their expenses from their own means a sum repayable upon graduation by monthly instalments, so as to complete the repayment within the same number of months as that during which he was in receipt of the scholarship. The course of study in medicine and law is for four years, and three in other subjects. The College of Law takes premier place, and sound original work is said to have been done in constitutional and international law. But Indian students will probably be more interested in the technical and industrial departments which are, however, said to be overcrowded. The following is the preparation required by an Indian student. He must be prepared to spend Rs.75 per month on living, books, and college fees, and to equip himself with summer and winter clothing of European pattern. All lectures are in Japanese, and he must spend at least eight months in learning enough to follow the lectures. Further, since German and English technical terms are largely used, and since all Japanese students are said to be able to read any German book on a technical subject, he must know German as well as English. He must have a knowledge of physics, chemistry, drawing, and mathematics, in the case of physics and chemistry up to the standard of Indian B. A. examinations. He must be able to pass an entrance examination, which is said to be equal to the Indian B.A. In short, he must at the outset be an Indian B.A., or at least know as much as one, and he must devote at least a year to preparation in India, three years to study in Japan, and a fourth to practical training in a Japanese factory or business house.

* * * *

There were some noteworthy features in the proceedings of the Mahomedan Conference at Ahmedabad last month. First and foremost, the great obstacle to the progress of education among the Mahomedans continues to be the divergence of opinion about the purdah system. To this was attributed the smallness of the amount of subscriptions collected. Not only does the purdah system in itself make education more difficult, but the fear of its supporters that the Conference may give countenance to those who seek to remove it, causes many to withhold the support they would otherwise give to other proposals of the Conference with which they quite sympathise. Secondly, judging from the rather meagre newspaper reports, the attention of the Conference was mainly concentrated on primary education, though one paper on the subject of a Mahomedan University was read. That rapid progress is to be made only by building from the foundations in the elementary schools is the first thing to be realised. Thirdly, a resolution in favour of female education shows that some progress is being made. It is not to be expected that far-reaching reforms or great schemes shall be promulgated in such Conferences, which serve rather for the interchange of ideas and the smoothing away of prejudices. But, nevertheless, the reports of the Conference proceedings are rather barren reading and do not contain much of practical utility.

EDUCATION IN ENGLAND.

THE danger-point in national education at the present time lies in Wales. The fact that the Education Act of 1902 included Wales as well as England implicates, to a degree which in the nature of things was unnecessary, English and Welsh educational affairs. In England the stream of Nonconformist disapproval on certain features of the Education Act runs as strongly as ever, though there is a general desire to work the main parts of the Education Act in a reasonable and practical spirit. In Scotland, though the Education Act for 1902 does not apply to that country, much sympathy is felt with English and Welsh Nonconformist opposition. But it is in Wales that matters have reached a crisis. Under the leadership of Mr. Lloyd-George there is at present what appears to be an almost overwhelming national movement of opinion against the provisions of the Education Act as affecting the administration of elementary schools. What is proposed is that in the last resort the Welsh County Councils should decline to work the Act, and should throw upon the Board of Education the responsibility of enforcing the provisions of the Act, even to the point of actually undertaking its local administration. In fact, the Welsh County Councils threaten to behave towards the Board of Education exactly as a little child does when it seeks to baffle its nurse by refusing to use its legs. The leaders of the Welsh movement propose to make temporary provision for the school children in chapels and vestries, evacuating the buildings which are under the control of the Voluntary Managers. This policy is not universally approved by the Liberal Party in Wales. A few days ago, Mr. Bryn Roberts, Liberal Member for one of the divisions of Carnarvon, when addressing a public meeting in his constituency, urged a reconsideration of the extreme policy which has been adopted by the Welsh National Convention. But though Mr. Roberts is held in great respect by his colleagues and fellow-countrymen, he was so far from persuading his audience that at the conclusion of his address a resolution endorsing Mr. Lloyd-George's policy was unanimously adopted.

Liberal political Wales is practically solid against the Education Act. In these circumstances, it is the teachers in the elementary schools who practically hold the balance in the struggle which is pending between the Welsh County Education Committees and the supporters of the Voluntary Schools. Unless Mr. Lloyd-George and his friends can carry with them the certificated teachers in the Welsh schools, in hearty co-operation their militant policy can hardly be carried out with success. The teachers are naturally afraid that their salaries will be greatly curtailed during the threatened conflict. Their influence is therefore a restraining force in the situation, and the action of the National Union of Teachers which represents them will do much to determine the issue of the struggle. It is much to be hoped that even now at the eleventh hour some *modus vivendi* will be found.

The Education Act as it stands, though quite acceptable to many districts in England, is, broadly speaking, impossible as a final solution for Wales. The Church of England would be wise to accept some compromise and to hand over a considerable number of her elementary schools, together with the right of appointment of teachers in those schools, to the County Education Committees, in return for the right to provide religious instruction of a denominational character on at least one day in the week for pupils in all the public elementary schools—Council and Voluntary alike. For my own part, I am inclined to think that the relative importance of such denominational religious instruction as compared with the other parts of school-work has been considerably exaggerated by most Anglican speakers during the present controversy. But there is nevertheless substantial ground for wishing that parents who desire that their children should receive religious instruction in the doctrines of the Church of England should have convenient opportunity for securing this, together with the advantages of a first-rate elementary education—an education efficient when judged by the highest modern standards.

As to whether the facilities for this denominational religious instruction should be accorded inside the school-building or outside it, there seems ample room for different forms of settlement in different districts. In some cases, with tact on both sides and with the good will of all concerned, the most convenient solution would be for those who are charged with the duty of giving the denominational religious instruction to come once a week to the school itself. But in many cases the building is not adapted for the organisation of separate instruction; and speaking from an educational point of view, there seems to me more to be said in favour of giving the denominational religious instruction in church, or in some building attached to the denomination concerned, than for pressing for its being given within the school-building itself. Within the school, the intellectual and moral authority of the teachers on the staff should be supreme. To bring in an outside teacher with a separate mandate and with pretensions (which might sometimes be tactlessly pressed) to higher authority, might sometimes embarrass the smooth working of the school. And, on the other hand, the religious instruction would gain in dignity and in solemnity of association if it were imparted inside the church or other place of worship. No one who, when travelling in France, has been present at the catechising and religious instruction of school-children in church on Thursdays can fail to feel that considerable advantages are attached to this solution of the difficulty. At the same time, it would be unnecessary and undesirable to place an embargo on simple religious instruction being also given in the elementary schools within the limits of the Cowper Temple Clause. Such teaching would be a preparation for, and a natural accompaniment of, the more denominational religious instruction. It should remain in the hands of the ordinary teachers of the school, and while confined within moderate compass in point of time, would naturally continue to be associated with some simple form of service at the beginning and end of the school day. In some districts, no doubt, the Local Authority would think it expedient to omit all religious teaching and worship from the curriculum of its elementary schools. The decision in the matter might fairly be left with the Local Authority itself. But in by far the great majority of cases in England, the Local Authority would desire to continue in Council schools religious instruction on the lines at present permitted by the Act. And there is reason to think that the Church of England and other religious bodies would in the long run gain far more from the continuance of this instruction than from its statutory prohibition. Those who have had experience in teaching little children are not, as a rule, disposed to follow the Bishop of Worcester and others in pressing the logical impossibility of devising a form of religious instruction other than definitely denominational. For little children, very simple and reverent instruction is the best. The right aim is not to fill their minds and memories with theological formula inappropriate to their age, but to make them love what should be loved, scorn what should be scorned, and try to do their duty.

There seems, in short, to be a growing body of moderate opinion in England in favour of having a broadly national system of elementary schools, with facilities for outside instruction once a week during school-hours in the doctrines of the particular Church to which the parents of the children severally belong. Such a weekly religious lesson in church ought to be given at a time when the attendance of the children could easily be secured; in other words, it would take place at a time of day which during the rest of the working week would be occupied with school lessons. It would not be beyond the power and strength of a clergyman to devote, say, one hour a week to this instruction in the church itself. The preparation of such a lesson would involve much thought as well as considerable skill and experience in teaching. It would probably be found that the clergy would specially train themselves for this responsible and difficult part of their work. Such a lesson, given once a week, with educational skill and amid the associations of a place of worship, would probably be found to do much to impress the minds of the children with the sense of reverence for unseen things. It is clear, however, that the improvement of our elementary education has become a national necessity. Very large numbers of the existing school buildings, both council and voluntary, are inadequate and unsuitable from a modern educational point of view.

We want everywhere bright and attractive schools, the abolition of large classes, more highly-cultivated teachers, a less bookish curriculum; and a stronger spirit of patriotism and of social service throughout the course of studies. We need more teaching of the laws of health and a considerable development of school games and of those other activities which develop *esprit de corps*. Nothing short of this will really give us an educated democracy. To secure it will entail immense expense, but the expenditure involved, if wisely made, will be our best national investment.

Reforms of this kind, however, cannot be taken in hand unless we have a strong national movement operating throughout our educational system. To remove the obstructions which at present impede this stream of national purpose through our schools must be the chief aim of English educational reformers. Would it not be prudent therefore for the Church of England, instead of opposing or thwarting the new movement, boldly to throw in its lot with it? Multitudes of our elementary schools are denominational from historical reasons only. It would be a great relief to the Church of England and would conduce to our educational efficiency if large numbers of existing voluntary schools were given up and their place taken by schools under public authority. On the other hand, there is an earnest desire on the part of all who realise the value of spiritual associations in educational work not to break violently with the past. To weave in the new order of things with the old is the special function of England in the development of culture. Is it not desirable, therefore, that, instead of the Church fighting against the secular State for the control of a large part of the elementary education, these two authorities should see their way to a reasonable division of functions? But such division can only take place if the Church of England is prepared to hand over certain responsibilities which in the development of national life should now fall to the care of the State rather than to that of voluntary endeavour. At the same time it is much to be desired that the Church of England will maintain in each large district and in each large town and city one school at any rate in which the highest intellectual and educational efficiency is combined with intimate and constant association with the spiritual community to which the school belongs. By concentrating its thought and effort on the establishment and maintenance of a limited number of such ideally excellent church schools, the Anglican Communion would probably do far more to influence the tone and aims of national education than by maintaining very large numbers of small voluntary schools on an inferior plane of educational excellence and equipment.

* * * *

The resignation of the Head Master of Eton, Dr. Warre, is announced, and the Head Master of Harrow, Dr. Wood, has been appointed Dean of Rochester. Thus, at one and the same time the headmastership of two of the chief English public schools is vacant. Much depends for the future of English higher secondary education on the choice made in the selection of their successors. At the present time the fortunes of Winchester are happily in the ascendant, owing to the far-sighted and tactful administration of the Head Master, Dr. Burge. The new Head Master of Marlborough, Mr. Fletcher, is also doing much to adapt the work of the school to the needs of the time. We do not want a revolution in our English public schools, but we do need very badly a reconsideration of curricula, an improvement in the methods of teaching, and a willingness to cast off the pedantry which besets much of our classical education. Never before has there been so great an opportunity for a humane education based on a knowledge of the classical world. But at present there is too much attention to the technicalities of classical scholarship.

* * * *

The movement for holding Vacation Schools is growing in England. This summer three such schools have been organised: one at the Passmore Edwards Settlement in Tavistock Place, another at Woolwich, and the third in Walworth. The idea comes from America. The first of such schools was established in 1866. In 1883 a vacation school was conducted as part of the public school system at Newark; New York instituted them in 1894, and Chicago in 1896. They were opened a few years later in Brooklyn, Hartford, Cleveland, Baltimore, Philadelphia, Buffalo, Indianapolis, and other places. Everywhere they have been a success. They meet a social need. During the long summer holidays and the hot August days the slum children should have some better school than the street.

* * * *

The late Dr. Isaac Roberts of Liverpool has left a large fortune to be divided, after the death of his wife, between the three Welsh University Colleges (Aberystwyth, Cardiff, and Bangor) and the University of Liverpool. Each will ultimately receive about £15,000. He was a remarkable man. He began his life in poverty. When he was a builder's apprentice, his master paid his fees for attending classes at the Mechanics' Institute. With a true Welshman's zeal for learning, he steadily worked on in his leisure hours and developed a great talent for scientific research. Industrious in his business, he grasped an opportunity when it came to him, and finally acquired wealth as partner in a successful firm of builders. But he never ceased learning. His astronomical studies, in which he was aided by his wife, made him famous. When he retired, he built for himself a well-equipped observatory at Crowborough. A man of wide culture, he combined business ability with devotion to science. And now he leaves behind him a great memorial. Wales and his adopted city receive from him this munificent gift, which will do much to strengthen the higher education given at the universities. Such a life and such an example deserve to be held in high honor.

* * * *

As I write these lines, news reaches me that the Welsh educational difficulty has entered on a new phase. Three days ago a respected Welsh school-master, Mr. Tom John, wrote on behalf of the elementary school-teachers of Wales to Mr. Lloyd-

George and to the Welsh Bishops, respectfully suggesting that the time had arrived when the parties on each side of this unhappy educational controversy might meet "for the purpose of considering whether it was possible, in the interests of the children of Wales, by some mutual understanding on either side, to obviate the necessity of putting into operation the resolution of the Welsh National Convention," *i.e.*, the decision to throw upon the Board of Education, in certain contingencies, the responsibility of carrying out the local administration of the Education Act in Wales. This was a reasonable and timely suggestion, and in the circumstances Mr. John was the right man to make it. Mr. Lloyd-George replied on October 25th that he would at once, as President of the Welsh County Council Association, take steps to summon a meeting of that Association to consider the suggestion. He added that he had no doubt, from his personal knowledge of the leaders of those authorities, that their answer would be a favourable one. They would, he felt sure, be ready to meet the leaders of the voluntary school system with a view to discussing the possibility of arriving at a friendly solution of the difficulties. But from the Bishops a very different answer has been received. Writing from Lambeth Palace in London on October 25th, the Bishop of Llandaff replied to Mr. John that after careful deliberation 'my three Welsh brethren and myself have come reluctantly to the conclusion that at the present moment such a conference as you suggest does not hold out a reasonable hope of being productive of any satisfactory results.' This answer is to be deplored. Some malign influence is at work, and the Bishops are being ill-advised. But we must hope that even yet better counsels may prevail. What is wanted is a statesmanlike reconsideration of the whole problem in its varied bearings. Obstinacy and suspicion are out of place. Unless it approaches this grave question in a spirit of conciliation and of patriotic desire for educational reform, the Church of England in Wales, as an Establishment, is marching to its doom.

MICHAEL E. SADLER.

October 27th, 1904.

EDUCATION AMONG THE SANTALS.

THE Census of 1901 showed that of the entire population of Bengal —78 millions—about three and a half per cent. are still to be classified as aboriginal in race and "animistic" in religion. These are the jungle tribes, found chiefly in the hilly country of Chota Nagpur or on the north-east frontier. Among these the Santals are by far the largest and most important tribe. They are, according to Mr. Risley, "typical examples of the pure Dravidian stock," dark, often jet-black in colour, sturdily built, with fine muscular development, coarse, curly, black hair, and broad but not unpleasant features. They numbered nearly two millions at the Census, and showed an increase during the decade of twenty-four per cent., while that for all Bengal was only four per cent. This apparent "phenomenal increase," as the Census Superintendent described it, was no doubt due in part to more careful enumeration, but it is indisputable that the Santals are a race of exceptional vigour and vitality, in no danger of extinction. They are in great demand as labourers on the tea-gardens, and as there is a steady stream of emigration year by year from their home in Chota Nagpur and the Santal Parganas to Assam and Darjeeling, they are likely to settle as colonies in these districts.

The history of education, in its modern sense, among the Santals, is the history of Christian missions in their country, and that dates from their rebellion, or *heel*, as they call it, in 1855. The landlord and the money-lender have always been the natural enemies of the Santal, the former exacting rent for land which the Santal himself had reclaimed from jungle, the latter taking advantage of his ignorance and advancing him loans of money or seed grain at exhorbitant rates of interest, and finally exacting his pound of flesh by seizing his cattle and fields or reducing him to a condition of virtual slavery. Fifty years ago the advent of civilisation in the shape of the railway, with its demand for labour and offer of regular wages on a scale hitherto undreamt of, awakened in the Santal a sense of the degradation to which he had been reduced, and led indirectly to the insurrection. Complaints about their grievances were unheeded by local officials, and the people determined to lay their case before the Governor-General in Calcutta. They assembled in a body, 20,000 strong, under two leaders, Sido and Kanhae. At first their proceedings were orderly, but a plot on the part of the police to arrest the leaders on a false charge led to bloodshed, and the movement rapidly assumed the character of an armed rebellion. A few Europeans were killed, but the fury of the rebels was directed against their Bengali foes, and not a single money-lender was left alive in the course of their march. After a good deal of delay, arising chiefly from the unwillingness of Government to supersede the local authorities, a regular campaign was instituted. The bloodshed that followed was deplorable, for the Santals knew nothing of the laws of warfare; nobody except themselves understood their language, and in many cases they were shot down to a man. The result, however, was that the Government turned its attention seriously to the condition of the Santal people, and became extremely anxious to promote education among them. The Church Missionary Society took advantage of this opportunity and planted several stations among them. The Government made generous grants of land and gave equally generous aid to the schools that were organised—arrangements the benefit of which this Mission continues to reap to the present day.

From time to time the Santals continued to cause anxiety to the Government. The last occasion on which there was any fear of serious trouble was in 1881, when a religious devotee began preaching a crusade among them, causing a general spirit of unrest. This was aggravated by the Census operations of the same year, investigations into their domestic circumstances being always regarded by these people with suspicion. A few officials were mobbed and a bungalow or two burnt down, but nothing very dreadful happened. The disturbances were just sufficient to remind the Government of the dangers inseparable from ignorance and superstition and to stimulate them in their policy of doing their utmost to encourage education.

One of the chief difficulties in the way of even primary education among a people like the Santals is the absence of a demand for it and of any public sentiment in favour of it. Their instincts and ambitions are not literary. The children are sent out to the jungle to herd cattle at the age at which they should be beginning school-life. Early marriage is not so serious an obstacle to female education as it is among many other sections of the community, for, as a rule, marriage does not take place till puberty has been reached. But while very few Santal boys are sent to school, a Santal school-girl, except in a mission school, is practically unknown. Education is not merely looked upon as unnecessary, but even as a positive evil, unfitting the boys and girls for the life that awaits them as tillers of the soil. It is not so very long ago, however, that similar arguments were urged against the general education of the poorer classes in Britain. Even among those who have been led to desire education, it is found that there is a limit to the extent of their possible mental development. Many of the children at first are quick to learn, and have no difficulty in performing feats of memory which would be almost impossible to many children in more highly civilised countries. But very few persevere till they reach the Upper Primary stage (corresponding to the Sixth Standard), and still fewer reach any higher limit. No Santal youth, as far as the writer is aware, has entered a University; the highest academic post to which any one has risen has been that of a sub-inspector of schools. The recent Resolution of the Government of India on the subject of Education seems to take it for granted that the prime difficulty has hitherto been the want of money, and that if sufficient funds were provided the village-schools, which at present are found in only one village out of five, could be multiplied almost indefinitely. But it is not the supply that is deficient, in very many cases, but the demand that is lacking, and the capacity of being educated beyond the most elementary stage, in some instances, does not exist.

The first schools opened among the Santals have, as a rule, been boarding-schools. If a boy is to be educated, he must also be clothed, housed and fed, for his parents cannot be expected to be chargeable for him now that he no longer takes his share of the household work. This is, of course, merely a temporary expedient, and it is apt to aggravate the prevalent prejudice against education as a means of unfitting lads for the hard work of life. But the system has been necessary in order to provide Santal teachers who, it is hoped, will prove to be the apostles of education among their fellow-tribesmen, and through whom some of the ideas inculcated in the school will filter down to the villages. A really popular system of education, however, must have for its medium a widely distributed organisation of day schools, and it is in connection with such schools that the real difficulty has to be faced. Santal villages are small, remotely situated, and far apart from each other. This makes it difficult for a teacher to gather a sufficient number of children to gain Government recognition and grants-in-aid for the school, and it makes efficient supervision almost impossible. Ten is the minimum number of scholars usually insisted upon to entitle a school to a grant, and in not a few villages this number of children of school-age and able and willing to attend school cannot be found. Even when they can, it is necessary to adopt what is known in Europe as "the half-time system." It is out of the question to expect the children to devote the main-part of the day to schooling. In most cases the school assembles during the mid-day hours when the cattle are brought in from the pasture lands. In other cases, the forenoon is occupied in ploughing, and the afternoon in lessons; or school again may assemble in the early morning hours in order that the boys may spend the rest of the day in hunting. This *pathsala*, which meets under the shade of a spreading tree, or in a disused cowshed or threshing floor, where the pupils chalk their letters on the hard-baked ground, or trace them with their fingers in the sand, is the very lowest round in the educational ladder.

Another plan which has been adopted with a considerable measure of success in at least one part of the Santal country, is the night school. These meet for a couple of hours after sunset, and promise to be the most popular educational institutions we have. All, old and young, are free to attend, and not the least useful feature of this plan is that it affords those lads and men who have formerly learned a little in school an opportunity of adding to their meagre stock of erudition, or at least of preserving it from oblivion.

Although the Santal shows little aptitude for literary education, he affords much more promising material for industrial training. He is clever with his fingers, and also with his toes; his jungle-life has trained his powers of observation and of physical endurance, and he is not handicapped by caste pre-possessions. He is a born engineer, with a perfect genius for the construction of tanks and roads. He has taken to carpentry, blacksmith work, bricklaying, silk culture, gardening, printing, etc., very readily and with good results. He makes a good domestic servant and a good compounder or hospital dresser. Technical education is still in its infancy among the Santals, but it seems to be capable of great developments.

The results of the Census showed that while education is practically stationary among the non-Christian Santals, among their Christian fellow-countrymen the progress made has been considerable. Of the non-Christians, 997 out of 1,000 males and 1,000 out of 1,000 females were returned as illiterate. Among the Christian Santals the male literates were 290 per 1,000, the female 151 per 1,000, or a total of 226 per thousand. A community in which the women or girls who can read are only fifteen per cent. has still a good deal of progress to make; but to judge of the progress already made comparison must be made with this community as it formerly was, and also with other communities in the same country. Fifteen per cent. is better than *nil*, and there are only two native communities in Bengal where the figure is higher—the Baidyas, who have 259 educated females per 1,000, and the Feringis, who have 152. The latter, however, are a race of mixed origin, descendants of the old Portuguese pirates who once infested the Bay of Bengal. Among the Brahmans throughout the province of Bengal the number of educated females is only 26 per 1,000.

J. M. MACPHAIL.

MILL AS AN EDUCATOR.

(Continued from page 160.)

(Continued from page 160.)

THE NOTIONS OF SUBSTANCE AND ATTRIBUTE.

THE criticism to which Mill subjects the traditional definitions of substance and attribute is practically a discussion of the metaphysical notions of substance and accident, although of the latter class he considers only one species. A substance, according to the old philosophy, subsists in itself, whilst the accident requires for its existence another being in which it subsists or, popularly speaking, inheres. Both definitions are based on data of self-consciousness. We are aware of passing thoughts and feelings swiftly succeeding one another and often leaving not even a faint impression in our memory. But we are also conscious that there is something permanent that claims all those thoughts, past and present, as its own, and is able to reproduce at least many of them. We cannot admit that the various acts required for the construction of a philosophical argument, such as collecting the materials, arranging the premises, and the drawing of the conclusion, are entities altogether different and disconnected. On this assumption the after-consciousness that one and the same thinking "I" had an active share in all these processes would not only be illusionary, but also inexplicable. There is an abiding Self, and there are changing states, in some way indentified, yet in some way different. The fleet travellers hurrying over the field of my mental vision are not the whole Ego, yet they belong to it and depend on it. For I know that by my own efforts I can change my transitory states and by producing new ones can crowd the old ones out of actual existence. The Self cannot dispense with all passing states, but it may continue to exist after the present set has ceased to be. My present thoughts cannot be without the Self, but the Self can be without the present thoughts. This different mode of existence the Aristotelians expressed by the terms substance and accident. In outward objects they discovered the same difference of being. The flying ball arrested by a lucky catch is not annihilated in my hands, and another ball without inherent velocity ushered into existence. It is one and the same ball that undergoes a change. Hence there are enduring indentities and transitory states also in the realm of matter. To determine more accurately the relations between the two is a further problem which greatly exercised the minds of the philosophers of old, and was by some declared insoluble. But this difficulty was for them no reason to renounce the certain knowledge they had obtained. Their reasoning is clearly laid down in numerous works. Let us see what Mill has made of it.

It is surprising to find that the "subsistence" of the philosophers is in Mill's account rendered by self-existence. "A substance, on the contrary, is self-existent." One might conclude that the Aristotelians allowed to attributes no existence of their own. But the distinction they made between dependent and independent beings shows clearly that they did not deny real existence to attributes. Nor did they define the *nature* of the accident, as Mill implies, as something that might be connected with the substance by the particle "of." They also spoke of parts of the substance, but carefully distinguished them from accidents. When Mill says "a substance may be conceived without any other substance, but so also may an attribute without any other attribute," he seems to aim at the very distinction of these two classes of beings. This seems also to be the drift of the remark that follows: "and we can no more imagine a substance without attributes than we can imagine attributes without a substance." But the irrelevancy of both remarks is striking. As to the former, the reader of my foregoing explanation will be aware that there is no question at all about the dependence of attributes on attributes, but *of attributes on substances.* And as to the latter, it is clear that Mill has mixed up different issues. The Aristotelians never maintained that a substance can be without all attributes, but only that it does not depend on *its present set* of attributes.

Mill next informs us that the metaphysicians have "given an account of substance considerably more satisfactory." Probably he intended to give us this account in the theory which he then attempts to prove, that the attributes commonly predicated of bodies are, at bottom, identical with our subjective states. This attempt, if successful, would dispose of the changing states of bodily substances, but it would not solve the metaphysical problem from which the inquiry starts. There are still the transitory feelings, states and capacities of the mind. In Mill's "Logic" the spiritual substance of mind fares better than in his "Examination of Sir W. Hamilton's Philosophy," where it is simply dissolved into feelings. The problem therefore could not be shirked. When treating of "Mind", Mill had to raise the questions whether the same sort of existence can be predicated of those fleeting states and the abiding Ego, and how we may best conceive that unity amid changing variety which is a fact of internal experience. But no solution has been attempted. The old theory has been belittled and misrepresented, but no explanation of the problem is offered. Surely, from such models the student cannot learn how to present a philosophical system with accuracy and to comment on it with scientific earnestness.

BODIES.

Mill's definition of body as "the external cause to which we ascribe our sensations" can scarcely be regarded as a profession of realism. Even idealists admit that in common language we *ascribe* our sensations to some external cause. It is only the remark that he is expounding "the received doctrine of modern metaphysicians," and the further addition that the extreme idealistic theory has not been generally adopted by subsequent thinkers, which allow us to conclude that Mill stands here on realistic ground. This impression is confirmed by the invitation to consider what position it is necessary to take up in order to defend the *existence* of bodily substance. I am therefore surprised to find that this invitation is followed by an analysis in which the substance of the writing-table, with all its objective qualities, is resolved into purely subjective states. But is this the table-conception we needs must form when bent on maintaining the existence of substance? It rather seems to pave the way for extreme idealism. It is undoubtedly true that many of the so-called attributes of bodies, such as colour, taste, etc., are in their complete actuality only expressed in our conscious states; and here, for argument's sake, we might allow the same for all the attributes. But I must insist with the old philosophers that our perceptions require, at any rate, some ultimate properties and powers in things. The last reason why certain objects appear to us white and others black, some compressible, others incompressible, cannot be found in subjective faculties of interpretation, but only in different qualities inherent in external objects. To these no reference is made in Mill's analysis of the table, and the bodily substance, if not discarded altogether, appears divested of all individual character. All that remains is mysterious and unthinkable, and absolutely incapable of manifesting its presence to the mind.

EXTREME IDEALISM?

It might seem that Mill himself is but little concerned to uphold the reality of his bodies, which are shadows rather than real existences. For, from one of the notes added to the chapter, I gather that he is quite prepared to accept the doctrine of the extreme idealists, regarding which he had stated before that it was not generally received by subsequent thinkers. "With the first of these opinions, that which *denies noumena*, I have, as a metaphysician, no quarrel." But if Mill has no quarrel with an opinion that denies the substantiality and the permanency of bodies and spirits, he must necessarily quarrel with realism, to which he so often gave his consent. Hence there is one philosophy in the text of the logician and another philosophy, contradictory to the former, in the notes appended by the metaphysician. In logic Mill professes still some kind of realism; in metaphysics he is ready to accept the tenets of extreme dealism.

Our author is not quite unconscious of the difficulties besetting him. But he tries to minimise them by representing the adoption of the one or the other metaphysical system as a matter of indifference. "But whether it (*viz.*, the doctrine that denies all noumena) is true or false, it is irrelevant to logic. And since all the forms of language are in contradiction to it, nothing but confusion could result from its unnecessary introduction into a treatise, every essential doctrine of which could stand equally well with the opposite and accredited opinion." This passage is certainly a bad recommendation for the doctrine of extreme idealism. It also throws some doubt on the scientific value of Mill's treatise by suggesting that the writer has adopted the view propounded in the text rather for practical reasons than from genuine conviction. But I must add that the author decidedly underrates the consequences of the introduction of extreme idealism into *his* "System of Logic." It would not only create confusion, but render many passages of his work absolutely meaningless.

If there are no substances, there are also no attributes of external objects, and the studied language and the ambiguities to which Mill has to resort in the following section in order to connect his attributes at least apparently with bodily substances, does not serve any purpose. Together with substances there vanishes also the distinction between sensations and ideas established on the ground that the former are mediately excited in the mind through the influence of some external object on our bodily organs. If external substances and with them even our own organs, nerves and brains are resolved by a consistent idealism into feelings, there is no reason any more to divide off the latter into sensations and ideas. Finally, in his inductive logic Mill must, for his illustrations, draw upon various scientific theories and results; but idealism has so far not supplied, and it will never supply, a language in which questions of physics or chemistry can be intelligibly expressed.

H. BOESE, S. J.

THE MEDIAL SECTION.

AN INSTANCE HOW TO MAKE MATHEMATICS INTERESTING.

TO divide a given straight line in the extreme and mean ratio, that means to divide a straight line into two parts A and B, so that A is to B as B is to the sum of A and B, is a problem that bears the name of the medial section. Expressing the relation A to B in numbers A is to B as 1 is to 1·618033. In our illustration it will be convenient to mean by A to B or B to A, a division that agrees with the law of the medial section. This geometrical proportion was already known to Euclid. Lucas Pacioli (about 1509), full of enthusiasm for the proportion, called medial section, gave it the name *proportio divina* (divine proportion).

Kepler was the first who gave expression to the idea that in the formation of plants the law of the medial section possibly finds its prototype. And, indeed, the special studies of Schimper and Braun in the middle of the nineteenth century have proved that the idea of Kepler was not an empty flash of genius, but a fertile presentiment of true reality. A further development is due to Dr. F. H. Pfeifer's work, "The Medial Section and its Forms of Appearance in Mathematics, Nature, and Art." Plants, insects and the distances between the whirls of snail-shells were the prominent objects of his measurements, and as the end of his labour, comprising more than one thousand species of plants alone, he could wind up his investigations by the true remark, that the proportion called medial section is of frequent occurrence in nature and art. The measurements of E. Blatter of leaves and leaflets of many umbelliferous plants and ferns are a test for the exactness of the above statement. He remarks that one is surprised to see the beauty of these plants and is even more astonished to find that the cause of this beauty is precisely the application of the law of the medial section. Wasmann's scientific researches corroborate and enlarge the results of Pfeifer. Besides in other numerous measurements of insects of different classes, he observed especially in those of a common stag-bettle (*Lucanus cervus*), whose horns were thirty millimetres, that the ratio of the medial section occurred sixteen times over to almost the last decimal of exactness. I quote only a few of these measurements. The lengths of abdomen and thorax, lengths and breadths of the abdomen are in the ratio B to A, the lengths of thorax and the first thoratical segment, the latter and head-lengths are all as B to A. With these facts before us, we shall be right in concluding that lines, figures, works of architecture divided according to the medial section will not fail to make a pleasant impression upon the human eye. Fechner tried by experiment to investigate the point in question. He brought the latitude and altitude of a rectangle into different proportions before the eyes of one hundred persons, and he had the pleasure to see that all were pleased with that arrangement which followed the law of of the medial section. The size of *Indian Education*, to take the nearest example at hand, nearly conforms to the standard of the medial section and hence the pleasantness of its exterior form.

If then the highly developed æsthetic sense of the Greeks anticipated the results of experiments made twenty-three centuries later, it will be no cause of surprise. The Parthenon, *e.g.*, at Athens is built in the following dimensions: breadth is to height as B to A; the lower part up to end of the columns is to the upper part as *B* to *A*. Other dimensions, besides, of the same temple bear the above mentioned ratio, so that it might seem that the Greek monuments of the time of Pericles exhibit a conscious application of a section rightly called *sectio aurea* (golden section). Even in the pyramids of Egypt base-lengths and height show the same proportion approximately.

At this stage some one may wish to know, if the masterpiece of the visible creation, man, imitates in this respect nature and art. I answer, Yes, it does. Besides other marks of division separating parts of the body in the ratio of the minor part to the major part of a line cut in the medial section, the navel for instance divides the length of the whole body in this ratio, and the head has its line of division in the eyebrows. Thus it is that the *sectio aurea* becomes a *proportio humana* (human proportion). I conclude with the words ascribed to Plato: "ἀεὶ γεωμετρεῖν τὸν θεόν," that is, "the laws of God in nature correspond with the laws of mathematics," and Lucas Pacioli was after all right in inventing the name *proportio divina* (divine proportion).

I. DEGEN. S. J.

PUBLIC INSTRUCTION IN THE BARODA STATE, 1901-02.*

Population.

Males, 1,008,634.
Females, 944,058.

Male scholars, 67,572, or 44 per cent. of school-going age; female, 13,381, or 9·4. Total expenditure on Public Instruction, Rs.7,29,236.

English Educational Department.

This includes the Baroda College, three High Schools, fourteen Anglo-Vernacular, and four Grant-in-aid Schools, and six students in England. Pupils, 3,281; expenditure, Rs.1,47,098, showing a decrease, attributed to a change of currency. At the Baroda College there were 206 students, a decrease of 10. Examination results of 1901:—

B. Sc.	2
B. A.	19
Intermediate	26
Previous	33
1st LL.B.	10

Thus 176 were sent up, and 90 or 51 per cent. were successful.

The schools show an increase of 225 pupils; 57·5 pupils passed the annual examination; 55 students passed the Matriculation, and 7 the School Final.

Vernacular Institutions.

1,206 schools; 80,953 pupils; showing an increase of 17 schools and decrease of 2,324 pupils. Educational facilities are provided for 69 per cent. of the population and 32 per cent. of the towns and villages

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* Report of Chhaganlal T. Modi, Esq., Acting Vidyadhikari, Baroda State.

Expenditure on all Vernacular Institutions, Rs.5,56,753. Nearly 63 per cent. of the pupils were Hindus, Mahommedans 10, and Jains 4·4. As regards the profession of parents or guardians, zamindars or cultivators have the highest percentage. "From a numerical point of view the special studies and the fourth and first standards appear to be progressing favourably, but all the other standards show retrogression."

Female Education.

8,608 girls in girls' schools, a decrease of 328 since the previous year; 4,773 girls in mixed schools; total number of girls receiving education, 13,381. Special subjects taught, embroidery, drawing, music, and cookery; the last has become popular and useful; 52 female teachers, of whom 44 are trained, 27 being trained. Miss Mary Bhore held the office of the Lady Superintendent of the Female Training College and Inspectress of Girls' Schools for ten months, and did very good work; she has introduced brushwork and basket-making. Total expenditure on the Female Training College, Rs.6,717.

Special Education.

The Kala-Bhavan School of Technical Instruction shows an increase of students and a higher percentage of passes in the annual examination. Classes for watch-repairing and the making of brushes, Galicha, nibs and buttons, and poker-work were introduced. Good results were obtained in the music schools and classes. The number of students in the Manual Training Classes slightly declined. Manual training, which means drawing and carpentry, is more popular than the alternative subjects—History and Geography. The proposed grand orphanage for 300 orphans at Baroda could not be established owing to want of funds, but provision was made instead for 300 orphans to receive elementary education in the local schools.

Backward Classes.

61 per cent. of Mahommedan boys of school-going age and 9 per cent. of the total Mahommedan population attended schools. The results of the examinations in schools for Forest Tribes were good. The carpentry class was largely attended. The Model Farm pays its expenses and has a surplus.

Compulsory Education.

There are 65 purely Compulsory Schools and 19 Regular Schools where the compulsory rules are applied to children of compulsory age; 60 of these schools are boys' schools. At the end of the year there were 3,468 boys and 227 girls or a total of 5,685 children attending, *i.e.*, 10·8 children of compulsory age to every 100 of the population. The expenditure was Rs.11,490, against Rs.17,996 last year.

The compulsory age is from 7 to 12 for boys, and 7 to 10 for girls. The method of compulsion is as follows: "If a child is absent for 10 days consecutively, or for 15 days in a month, without leave, the guardian is liable to a fine of As. 2. The Mehtaji submits to the Patel, at the end of each month, a list of such children, if the absence is without permission. The Patel calls the guardian and can excuse the fines for two successive periods, if he deems fit. The Patel writes his *shera* on the list submitted while returning it to the Mehtaji, who then forwards it to the Vahivatdar. The Vahivatdar can recover the fines from the moveable property of the guardian. A person persisting in not sending his child to school even after being fined three times by the Patel has his name sent up to the Vahivatdar, who can fine up to Rs.2. Children can be excused attendance for a maximum period of two months in the reaping season." Other exemptions also are granted.

Miscellaneous.

No new buildings were constructed or undertaken, owing to financial reasons. Gymnastic exercises are performed, but the pay of gymnastic teachers is said to be too small to excite them to real interest. The pay of teachers generally is far too small. Nearly 1,800 or more than 60 per cent. receive salaries of Rs.7, 8, and 10 per month only. There are 395 trained teachers, but "there being no Training College for male teachers in the State, the number of trained teachers in employ evidently falls off instead of increasing." A proposal for a Training College was considered, but had to be postponed to better times.

NOTABLE HOUSES IN INDIA.

(BENGAL—*continued.*)

Name of Building.	Place.	Reasons for Commemoration.
113, Northern Circular Road.	Calcutta	From 1814 to 1830 this was the residence of Raja Ram Mohan Roy, founder of the Brahmo Samaj. Born, 1772; died at Bristol in 1833.
85, Amherst Street ...	Do.	This was the family residence of Raja Ram Mohan Roy.
House at the corner of Church Lane and Hare Street.	Do.	This was the residence of David Hare, an enthusiastic promoter of the English education of Indians. Born, 1775; died, 1842.
25 and 26, Brindaban Mullick's Lane.	Do.	This was the residence of Pandit Iswar Chandra Vidyasagar, C.I.E., educationalist, reformer, and philanthropist. Born, 1820; died, 1891.

Name of Building.	Place.	Reasons for Commemoration.
Nabakissen's house, Sobhabazar.	Calcutta	This was the residence of Maharajah Nabakissen, Lord Clive's *Diwan*, who died in 1797.
59, Bhowani Churn Dutt's Lane.	Do.	Birth-place and residence of Keshub Chandra Sen, religious reformer and Brahmo leader. Born, 1838; died, 1884.
Lily Cottage, 78, Upper Circular Road.	Do.	Residence of Keshub Chandra Sen.
No. 5, Protap Chandra Chatterjee's Lane.	Do	Residence of Rai Bunkim Chandra Chatterjee Bahadur, Bengali novelist and prose-writer.
No. 6, Manicktollah Road.	Do.	Residence of Raja Rajendra Lal Mittra, LL.D., C.I.E., scholar and antiquarian. Born, 1824; died, 1891.
Outram Institute, Fort William.	Do.	This house was built for the Governor-General, and was sometimes occupied by him. It was temporarily the residence of Bishop Heber, October to December, 1823.
Military Hospital ...	Do.	This building was formerly occupied by the Sadar Adalat, 1854 to 1870.
Hastings' House ...	Alipore	This house, originally the country seat of Warren Hastings, first Governor-General of Fort William in Bengal, 1774—85, was bought as a state guest house by Lord Curzon, Viceroy and Governor-General of India, in 1901.

Name of Building.	Place.	Reasons for Commemoration.
Magistrate's House ...	Alipore	This house was occupied by Sir Philip Francis, Member of Council, 1774—80. W. M. Thackeray, the novelist, who was born in Calcutta, lived here as a child.
Dum-Dum House ...	Dum-Dum ...	The country house of Lord Clive when Governor of Fort William in Bengal, 1758—60 and 1765—67.
House at Cossipore ...	Cossipore	Residence of Sir Robert Chambers, Chief Justice of the Supreme Court, Calcutta, 1791—98.
Hastings Lodge ...	Rishra	This house and estate, including originally sixty more *bigahs* of land to the north, known as the Rishra *Bagan* or Garden, was from 1780 to 1784 the property of Warren Hastings, Governor-General of Fort William in Bengal.

THE NEWS OF THE MONTH.

BENGAL.

SIR ANDREW FRASER'S scheme for a Model College at Ranchi advanced a step further on October 10th, when a meeting of the Executive Committee was held, and resolved that it gratefully accepted the Governor's assurance that he has no intention of abolishing the Presidency College, and appreciated his desire that it should be maintained as a Model College for the example of private Colleges; that Commissioners of Divisions should be asked to form committees to raise funds and further the scheme and to undertake the post of chairmen at such committees, with Collectors as secretaries; that funds should be collected for constructing three houses for Hindus, two for Mahomedans, and one for Brahmos, each house to hold forty students; that Rs.3,00,000 was required for the construction and Rs.3,00,000 for the upkeep of such houses, and that if the sum raised did not suffice, the boarding fees should be enhanced; that the tuition fees should be Rs.12 and that the boarding fees should be Rs.15, Rs.30, and Rs.45 a month, according to the requirements of the students in food and accommodation; that due respect should be paid to the religious and social feelings of the students. The Secretary explained that the education given would be generally the same as in the Presidency College, an option being allowed between the Arts and Science courses. The training would be up to B. A. and B. Sc. standards. An experimental farm would be attached to the College for training the sons of zemindars in agriculture. Practical training in Surveying and Science generally would be given in the Engineering College, which would be close by. Political Economy would be taught as part of the ordinary B. A. course. The Committee also considered that sufficient leisure should be left to the Professors, European and Indian, to carry on some original research.

Criticism on the whole continues to be rather hostile. The *Statesman* points out that the Governor's carefully chosen words, so far from definitely promising that the Presidency College will not be abolished, rather imply that it ultimately, though not immediately, will. It further calls attention to the fact that the Governor said that it depended on the feeling and support of the public whether the scheme was carried out, and that public feeling did not appear very favourable. It hints too that the part proposed for Commissioners of Divisions and Collectors in raising money is intended to bring official pressure to bear on local feeling, and that this is hardly consistent with the Governor's assertion that the scheme depended entirely on public support.

An important Resolution was published by the Chief Commissioner of Assam on October 19th on the subject of scholarships for Colleges. The Commissioner points out that in the last six years no less than one-third of those who passed the Entrance examination gained scholarships, and that the cost of collegiate scholarships is nine per cent. of the total educational expenditure as against three per cent. in Bengal and the two per cent. limit laid down by the Educational Commission of 1882. He is of opinion that scholarships are granted upon an over-liberal scale in Assam, since more than half of these who obtain them fail to pass the First Arts Examination. The most obvious purpose of State scholarships, he thinks, is to offer poor but clever students advantages of which unassisted they could not avail themselves, and that their utility should be judged by their effort in stimulating higher education among classes not favourably disposed towards it. "It is clear that from this point of view State expenditure upon scholarship, should diminish with the progress of a country, and an allotment which was no more than reasonable at one time may become unduly liberal at another." He thinks that secondary education in Assam is now so popular that the time has come to limit the expenditure on State scholarships. He would have the proportion of scholarships, to Entrance examination passes reduced from the present 33 or 40 per cent. to 25 per cent. the actual number to be allotted to be 32, 30 according to seniority and 2 for poor but deserving students who have failed to gain one by competition. He proposes to abolish the reservation of eight scholarships for students belonging to families that have come to Assam from outside; to allow industrious and promising students to hold their scholarships for a third year if they fail to pass at the end of their second year; to reduce the amount of the scholarships, from a maximum of Rs.25 to Rs.20, and to limit the number of scholarships worth more than Rs.10 to twelve; to make each

Local Board provide its own Lower Primary scholarships, and to limit its expenditure on them to 5 per cent. of its total educational expenditure; and, lastly, to abolish the grant of extra Lower Primary scholarships out of the savings of Sadr Boards. The *Statesman* denies the Commissioner's principle that expenditure should diminish.

On September 29th, at a meeting of ladies at Calcutta it was resolved that a Christian College on an Evangelical basis for Christian and Hindu girls should be formed, and should be intended for, and in a measure supported by, all Christian Missions in Calcutta.

Government is now prepared to admit Anglo-Indian lads in the Artizan Class of the Civil Engineering College, Sibpur, as day-scholars, free of fee, on condition that they attend the Night School at Doveton College, Calcutta, and that the course of theoretical and practical training is for four years.

BOMBAY.

At a special Convocation of the University held on October 17th, the honorary degree of Doctor in the Faculty of Law was conferred upon Dr. Ramkrishna Gopal Bhandarkar, M.A. Since the degree was created there have been only three other recipients,—the Marquis of Ripon on his retirement as Viceroy, Principal Wordsworth of Elphinstone College, and Sir Raymond West. The last two were Vice-Chancellors, as was Dr. Bhandarkar, 1893—1895. Dr. Bhandarkar is thus the first native to receive the degree. The Vice-Chancellor, the Rev. Dr. Mackichan, in his speech dwelt upon the great value of Dr. Bhandarkar's Sanskrit labours, and Lord Lamington, as Chancellor, praised the determination with which he insisted on rigid accuracy in research and honesty of purpose, public spirit and co-operation in matters social, religious, and political.

The fourth session of the Bombay Presidency Mahommedan Educational Conference commenced at Ahmedabad on October 15th under the presidency of Nawab Vicar-ul-Mulk. The Secretary reported that only Rs.15,748 had been as yet realised in subscriptions, of which Rs.10,000 had been spent, the bulk on constructing a school at Poona. He attributed the smallness of the amount to misconception as to the attitude of the Conference to the *purdah* system. The President in his speech dwelt on the need of giving elementary education to the backward classes and the advantage of higher primary and of technical education to the artisan classes. He proposed the institution of an orphanage so that Mahommedan orphans might not be left to Christian missionaries, and of a system of education for two hours per day for the children of agriculturists, and insisted on the necessity of maintaining the *purdah* system and of giving religious education. The resolutions passed by the Conference dealt with the same subjects. Funds for assisting Maktabkhanas, for a Library, and for an Orphanage were started. Papers on a Mahommedan University and commercial and technical education were read. Resolutions to maintain the *purdah* system and limit the expenses of marriage and other ceremonies were passed. An interesting part of the proceedings was the sale of a four-anna piece contributed by a *fakir* and Rs.9-11-0 contributed by a policeman—his one month's pay—which fetched Rs.305 and Rs.130 respectively.

At a meeting of the Municipal Corporation on November 11th, Mr. Owen Dunn, in a very able speech, defended the Victoria Jubilee Technical Institute from its critics. He pointed out that the Institution was not merely professional but disciplinary, and aimed not so much at turning out a mechanic fully equipped for one particular industry as to give such an elementary training as would enable the student to select his occupation rightly and work in it more intelligently and successfully than untrained mechanics. The student must be prepared, like American students, to undertake any kind of hard work after he left the Institute in order to demonstrate practically his usefulness. He went on to quote figures to prove that the students did find suitable employment. Of 382 students who had up to 1903 received diplomas, 372 were living, and of these 251 were reported to be employed; from 106 students no replies had been received; 172 students had reported their salaries, and the average was Rs.118 per mensem as against Rs.90 in 1898. While in 1898, 15·3 per cent. drew salaries of Rs.150 and over, the highest being Rs.350; 32·4 per cent. now earned Rs.150 and over, 13·3 per cent. earned Rs.200 and over, the highest salary being Rs.450. Mr. Dunn went on to compare the cost of educating students at the Institute and at other Colleges. The average cost at the Institute was Rs.350 per pupil, at the Grant Medical College Rs.480, and at the College of Science, Poona, Rs.1,140. He acknowledged that the metal-working and enamelling departments had given trouble, but justified their establishment. In conclusion he pointed out that in all things, high and fine, the supply must create the demand. Employers would be brought gradually to realize the value of students who had earned diplomas.

In the course of his tour Lord Lamington visited Hubli and laid the foundation of a new High School, to be called the Lamington High School. The site was of five acres, and a library and gymnasium are to be connected with it. At Dharwar the Governor visited the Training College and presented the prizes at the High School. Mr. Jather, the Head Master, in his address, said that for the first time in history a Mahar had presented himself for the third grade public examination and had done exceptionally good work. At Bijapur, the Municipal address dwelt, amongst other things, on the town's need of a technical school and a school for girls. The Governor held out hopes that the scheme for the former would be favourably considered by Government, but said the funds for the current year were all pledged, and at present no promise about the girls' school could be given.

The Municipal Corporation having asked the Joint Schools' Committee for information regarding primary school buildings in Bombay and their sanitary condition, the Committee have submitted a reply which, in dealing with the general condition of the buildings, says :— The general condition of school buildings is reasonably satisfactory. Ever since the administration of primary education was placed in charge of the Joint Schools' Committee, it has been their constant endeavour to secure better and more healthy accommodation for the school children, and their efforts in this direction have met with very considerable success. The progress has been steady and continuous from year to year, and the larger funds now at the disposal of the Committee will enable them to secure still better results. There are peculiar difficulties in the way of providing suitable accommodation, because the houses hired for schools were originally intended for dwellings, and as each primary school serves but a very limited area, the choice of a building for it is necessarily restricted within that area. Wherever the sanitary condition of such a building admits of improvements, the owners are encouraged to carry them out. Although in spite of the difficulties to be encountered, a great improvement has been effected, there are still a few schools which it would be very desirable to remove to better premises, as soon as they are available, in the particular localities served by them. It is now recognized everywhere that perfectly suitable and satisfactory accommodation can only be secured by the provision of buildings planned and constructed in conformity with the special requirements of each school and on approved sanitary principles. There are altogether ninety municipal schools at present, of which nine are accommodated in municipal buildings, and three in houses specially constructed by the landlords in accordance with the Committee's requirements. Under the ten lakhs scheme sanctioned by Government seventeen more schools particularly in need of better accommodation will be suitably provided for. The remaining schools, sixty-one in number, will be continued in hired buildings, until the question of their housing is dealt with in a similar manner.

Four Government scholarships open to European schools in Poona and Panchgani have this year been secured by the Bishop's High School, Poona.

BURMAH.

The quarterly meeting of the Educational Syndicate was held at Rangoon on September 24th, Sir H. Thirkell presiding. The President said that the returns of the Bernard Free Library showed a satisfactory increase of visitors and books lent. The Kinwun Mingyi had given instructions to his heirs that his library, which was of exceptional value from a literary and scientific point of view, should be made over to Government at a valuation for deposit in the Bernard Free Library. The Executive Committee had sought permission from Government to transfer from Syndicate funds Rs.1,000 for the purchase of additional books and manuscripts. The pay of the post of English Lecturer at the Rangoon College had been raised from Rs.300—Rs.500 to Rs.500—Rs.700. Proposals for strengthening the College staff were under consideration, but in view of the impending transfer of the College to Government it was not likely that they could be immediately carried into effect. The Principal of the College had urged that junior University scholarships should be awarded only to those who pass the Entrance examination in the first class. The Executive Committee, however, had thought it better to advise that the scholarships be awarded by the Director of Public Instruction according to the results of the Entrance examination and after such further enquiry, if any, as the Director might think necessary into the means of the candidate: that ordinarily they should be awarded only to those who gained a first class, but that this should not be an invariable rule: that no scholarship should be awarded as a matter of course or simply that the full number might be given, but only to reward special merit or to enable poor but deserving students to continue their studies. The Local Government concurred in these views. The Executive Committee saw no reason for resigning the control of the examination for teachers' certificates to the Education Department, as the Director had proposed to Government. It further could not support the proposal to make Physiology a compulsory subject in the provincial standards on the ground that the Anglo-Vernacular course was already overburdened, but it was considering the feasibility of adding a text-book on sanitation as a reader in Standards III and IV. By the Committee's advice the paper on Kindergarten in the teachers' tests had been restricted to female candidates. The general rules for the conduct of examinations had been amended in order to define more clearly the duties and powers of moderators and examiners.

The Honourable Tan Jiak Kim, Chinese member of the Straits Legislative Council, is undertaking to collect subscriptions for a Medical College in Singapore. Government has agreed to find the funds for the maintenance of the staff if $71,000 is collected in subscriptions.

CEYLON.

The agitation in England for the establishment of cooly schools in Ceylon has so far been successful that the proposals made by Mr. Burrows are approved by the Secretary of State, who thinks, however, that Mr. Harward's idea of grouping estates for educational purposes should also be tried where circumstances are favourable. The Director is to be asked to report annually on the progress made in these schools. Mr. A. G. Wise says he is fairly well satisfied with the result of the agitation; financial and other considerations prevent the adoption of more drastic measures.

Judging from newspaper paragraphs and letters, the proposed connection between the London University and schools in Ceylon does not meet with the approval of all concerned. Fear is expressed that the University Correspondence College will be largely patronized, and in this way education itself will suffer. Boys of the upper classes in schools would prefer to be coached by the University Correspondence College, and the schools will be neglected or abandoned. There are other critics who prefer the Madras University course. But the objections to London do not appear to be insuperable, and if the London University and the Ceylon Government can agree on the financial question, there is little doubt that our educational system will be linked, for some time at least, with the London University.

The opening of the new Technical College building is indefinitely postponed. A sum of Rs.3,300 is still required for its equipment, and till this is voted the work is delayed. The new chemistry lecture hall and laboratory and the two physics laboratories are used by the students of the Medical College. It is probable that the Medical College will be greatly extended next year.

There is a rumour that the Training College wishes to add technical and manual training classes to its present work, and that the Principal has applied to Government for sanction and for funds.

An example has been set in regard to donations to local schools. A Hindu gentleman of Jaffna has given a room worth about Rs.2,000 to the Jaffna Hindu College to enable the best Hindu boy in the sixth standard to be educated, if poor, from the rent of the building.

St. Benedict's Institute, Colombo, which has now 912 pupils on its register, is building a new hall to accommodate the large number who seek admittance. No other school in Ceylon has anything near the same number of registered pupils.

The Colombo Industrial School held its seventh annual Prize-giving last month, with the Government Agent in the chair. The school provides for the poorer classes of the population of Colombo, and is very successful in its efforts.

A Conversazione, held in Kandy, in connection with the Popular Lectures, was well attended, and was honoured with the presence of their Excellencies the Governor and Lady Blake. Lady Blake sent her Chinese embroideries, and a Burgher lady sent three pieces of embroidery, 200 years old. Kandyan exhibits were also shown, and the educational value of the Conversazione was by no means small.

MADRAS.

The reconstruction of the University Senate continues to provoke much criticism. The minimum number of *ex-officio* Fellows, *viz.*, five, has been accepted, and the minimum number of ordinary Fellows, *viz.*, fifty, has been nominated, while ten Fellows have been elected and ten more are to be elected. The Senate will, therefore, consist of seventy-five members, while the maximum limit is 110. It is generally supposed that Government have not nominated up to the full number allowable, in order that they may have the power of rectifying omissions when the elections are complete. Critics are busy pointing out these omissions. One correspondent points out that the Telegu community is unrepresented. The *Christian College Magazine* says there is no non-official who could be member of the Faculty of Science. Others point out that the Christian College has only two representatives and the Presidency College seven. The names of many who have been active in educational matters and who were formerly Fellows, but now are omitted, are being mentioned, *e.g.*, Dr. Henderson, the Rev. J. M. Russell, and the Rev. E. M. Macphail. The *Mail* thinks that Government, in spite of their repudiation of such a policy, have officialised the Madras Senate by the appointment of thirty-three officials and five *ex-officio* members. On the whole, however, the new Senate, while it has not met with such approval as the Bombay Senate, has not been very unfavourably received and will probably work well.

The Chief Presidency Magistrate has sentenced to four months' imprisonment a student accused of forging the name of the Principal of the A. E. L. M. College, Guntur, on a bogus certificate of age with a view to being permitted to enter for the Matriculation examination. The *Madras Mail* approves of this severe sentence on the ground of the need to check the growing dishonesty among candidates both in the matter of examination papers and certificates of age. Mr. Paterson, the Registrar, has managed to stop the leakage of question papers, but though the University offered a reward of Rs.1,000 for information how the leakage occurred, nothing was discovered on this point. The Registrar in 1903 made a searching investigation into the ages of private candidates, which showed that there had been a complete disregard of truth, and in consequence 143 candidates for the Matriculation were simultaneously rusticated for falsehood and fraud.

It appears that some headmasters of schools have encouraged and even participated in these frauds, it being their practice to falsely exaggerate the age of those candidates who were likely to fail, yet insisted on trying, in order that such candidates might be entered as private students (who must be 20 years of age), and so by their failure might not lower the school's percentage of passes. The Syndicate are considering the treatment of two notorious cases of headmasters acting in this way.

At the 21st session of the Mysore Representative Assembly the Dewan announced that arrangements were being made for an Educational Conference prior to the Christmas holidays. Of the education given in Mysore the *Pioneer* says that it is modelled very largely on that of the surrounding British Provinces, though the percentage of children attending school is somewhat less than that in Madras and Bombay, the boys in Mysore who attend school being 23·08 of the total, while in Madras the percentage is 25·6, and in Bombay 27·9. The education supplied is much more nearly free to the scholar than is the case in British India, for whereas in the latter 31·7 per cent. of the cost is derived from fees, in Mysore only 7·9 per cent. comes from this source. Here as elsewhere, female education is in a very backward condition, though it is noted in this report that for the first time in the history of Mysore two Brahmin ladies, teachers at the Maharani's College, have passed the B.A. degree examination, while three went up for the F.A. examination and one passed it. The year was marked by the inauguration of a scheme for the further development of industrial and technical education by the opening of new industrial and weaving schools in nine important centres, and by the award of scholarships to enable students to go to Bombay, Madras, and other places to learn technical arts and industries, for teaching which Mysore possesses no facilities. Another important measure sanctioned during the year was the establishment of an engineering school at Mysore for training sub-overseers, draughtsmen, etc. It may be noted as a proof of the enlightened policy pursued in Mysore that in all High and Anglo-Vernacular schools test classes were supplied with complete directions for detecting defects in the eyesight of pupils.

The Government of Mysore intimate that they will award from 15 to 20 technical scholarships, tenable for a year, from 1st January 1905, for training in those arts and industries, for which facilities of instruction do not at present exist in the Mysore State. Each scholarship will be of the value of Rs.15 to Rs.20, and will be awarded annually to selected applicants. The scholarships will be granted to natives of Mysore who are not more than 21 years old, and who possess at least the educational qualifications prescribed for admission into the institution which they wish to join, but are unable without Government help to attend it.

In order to perpetuate the memory of the late Rev. F. W. Kellett, the members of the Madras Teachers' Guild, at a Meeting held on Saturday, the 13th August, resolved to call the present Library of the Guild "The Kellett Library," and to raise funds for the purpose of purchasing a site in Madras and erecting thereon a building in which the Library might be housed and which would serve as the office and meeting place of the Guild. For the purpose of collecting subscriptions, a Committee was formed, and Secretaries and Treasurers were appointed.

Mr. H. J. Allen, M.A., Professor of History, Presidency College, is appointed to act as Principal, Rajahmundry College, during the absence of Mr. J. M. Hunter on leave or until further orders.

PUNJAB.

On November 7th an election of ten Fellows of the Punjab University took place at the Senate Hall, Lahore. Of the electors over 40 were present to find that they had 89 names to choose from. Of these 28 were Mahommedans, 27 Hindus, 26 Europeans, and 8 Sikhs. The result of the ballot was the selection of four Hindus, three Europeans, two Mahommedans, and one Sikh. They are—Mr. G. S. Brett, Government College; Lala Iswar Das, pleader; Mr. Golak Nath, barrister-at-law; Mr. W. T. Wright, Central Training College; Lala Buchi Ram, Government College; Rev. Fleming, Forman College; Mian Muhammad Shafi, barrister-at-law; Moulvi Fazal Din, pleader; Sardar Gurcharan Singh, barrister-at-law; and Lala P. N. Dutt, Assistant to the Registrar of the University. Only five of the ten are graduates. The Medical Faculty is left out in the cold, and the Mahommedans, with questionable wisdom, have left the Islamia College still unrepresented.

His Majesty's Secretary of State for India having sanctioned the appointment of a Registrar for the office of the Director of Public Instruction, Punjab, on Rs.500 per mensem, on the Provincial Educational Service, Mr. J. G. Gilbertson, M.A., is appointed to the post, with effect from the forenoon of the 1st October 1904. He will draw Rs.350 per mensem only for the present.

The Viceroy has nominated Mr. W. Bell, M.A., C.I.E., Inspector of Chiefs' Colleges, to be a member of the General Council of the Mayo College, Ajmere.

The *Pioneer* remarks that the activity in educational matters of Native States in this part of India is worthy of some notice. The Nawab of Bahawalpur is personally overhauling the school system in his State; Kashmir has just published elaborate regulations for inspection and for teachers' certificates; Patiala has called for an exhaustive report on the educational work of the whole State in all its aspects; and Jhind is advertising for a number of trained teachers.

The Secretary of State has sanctioned the proposals of the Punjab Government for the reorganization of the Indian Educational Service in the Punjab. There will now be a sixth Inspector of Schools, whose head-quarters will probably be at Amritsar. The Principal of the Central Training College will be placed on the same footing as the Principal and Professors of the other Government Colleges. The status of the Head-master of the Central Model School will be raised in order to attract a trained graduate; and a new appointment, that of Vice-Principal of the Central Training College, has been created; for this also the Secretary of State will select a trained graduate, from England. Three posts in the Aitchison College will belong to the Indian Educational Service, and the Principal, Lawrence Military Asylum, now appears in the same list.

The Government of India have decided to allot to the Punjab two State Technical Scholarships to enable natives of India to pursue a course of study in Great Britain or other Western countries. The object is to qualify them to assist in promoting the improvement of existing native industries and the development of new industries, wherever this may be possible. The Government of India have accepted the opinion of His Honour the Lieutenant-Governor that the industries of the Punjab which are most readily susceptible of development are Tanning, Metal Work and Pottery. The value of each scholarship has been fixed at £150 a year in addition to fees and travelling expenses, but if in any particular case this sum is regarded as insufficient, the Government of India will consider proposals for increasing it. The scholarships are tenable in Great Britain, on the Continent of Europe, or in America, and are payable from the date of the scholar's arrival in the country selected for study. Each scholarship will be held for an average period of two years, which may be increased or reduced in special cases. The scholarships are tenable by persons who are natives of India within the meaning of Section 6 of Statute 33 Victoria, Chapter 3. A competent knowledge of English or of the language of the country selected for study will be expected. No age limit has been fixed, but Government may limit the age in particular cases. Candidates will be required to submit certificates of good moral character and physical fitness. The selection of candidates will not be determined by examination; Government will be guided by consideration of the candidate's capacity, intelligence, previous training, practical interest in the industry selected, and the assurance that he will devote himself to it on his return to India. The scholars, while in England or elsewhere, will be under the control of the Secretary of State. Progress reports will be required from time to time, and when these are unsatisfactory the scholars may be required to return to India. After training no scholar will be bound on his return to India to take service with Government or a private firm, but he will be expected to avail himself of any suitable opportunity offered for the useful application of the results of his training.

The following notification has been addressed by the Punjab Education Department to the Managers of all recognised European Schools in the Province:—"In accordance with the orders of the Government of India, the Primary Schools examination is no longer a public examination. No certificates will be issued in connection with it. Promotion to the Middle Department will rest with the Managers of recognised schools, subject to the veto of the Inspector of European Schools. The examination is conducted solely with a view to the award of scholarships. In these circumstances the Primary School examination will in future be held only at those centres where candidates for scholarships intend to appear. Heads of schools must enter in the form of application only the names of such candidates as wish to compete for scholarships. It is useless to enter the names of pupils who cannot possibly win scholarships.

The Report on the Operations of the Punjab Text Book committee for the year 1903-04 states that on the recommendation of a sub-committee of mathematical experts, the Committee adopted a syllabus of Demonstrative Geometry for substitution for the present course in Euclid prescribed for High Schools, as also a preparatory course in Experimental Geometry and Mensuration for the Middle School Classes covering the ground of the syllabus referred to. Steps were taken towards the preparations of additional slides for the magic lanterns supplied by the Department to Inspectors for the use of schools. Among more important matters that received attention were the preparation of a Handbook of School Furniture and Apparatus, and a graduated series of charts for the assistance of Drawing Masters in teaching free-hand drawing, commencing with simple lines worked out by means of squared paper and leading up to more elaborate copies for use in advanced drawing classes. The scheme by which books are sent out to Inspectors of Schools, who make them available to the staffs of the schools at their circle head-quarters, is reported to have worked very well.

In reviewing the report of the Punjab Veterinary College for the past year, the Lieutenant-Governor notes that a large extension of the College is anticipated from the amalgamation with it of the existing Veterinary College at Ajmere now under contemplation. His Honour also remarks: "Despite the heavy teaching which has to be performed by a limited staff, good work has been done during the year in the investigation of disease and in the preparation of text-books. The Lieutenant-Governor agrees with the Director of Land Records in congratulating Major Pease and the staff of the College on what they have done during the year." Satisfaction is further expressed at the large increase in the competition for admission to the College. "The views expressed last year by the Director of Land Records that the supply of Veterinary Assistants is not in excess of the demand have been justified. The difficulty lies rather in training sufficient men, and with the appointment of Veterinary Inspectors, recently sanctioned by the Government of India, the demand for trained assistants will be increased in the future."

UNITED PROVINCES.

The new Senate of the Allahabad University held its first meeting on November 3rd in the hall of Muir Central College, Allahabad. The Hon. Justice Knox, Vice-Chancellor, opened the proceedings by summoning the Fellows recently nominated by the Chancellor to elect five more. The result of the election was as follows: Mr. A. Ward, Canning College, Lucknow; Mr. J. G. Jennings, Muir College, Allahabad; Rev. A. Crosthwait, Christ Church College, Cawnpore; Mr. Gardner Brown, M. A. O. College, Aligarh; and Mr. Knox Johnson, Queen College, Benares. After this the nominated Fellows dispersed and their places were taken by those who were Fellows under the old University Act. The following five additional Fellows were then elected: Dr. Satish Chunder Banerjee; Dr. A. Richardson, Central Hindu College, Benares; Mr. C. F. de La Fosse, Inspector of Schools; Mr. Matt. B. Cameron, Canning College, Lucknow; and the Hon. Madan Mohan Malaniya.

In his address to Convocation the Chancellor, Sir James La Touche, said that the first duty of the University was to supply a sound general education, to which specialised study must be regarded as an addition, not a substitute for it. Technical education was the sequel, not the cause, of industrial development and commercial education, the sequel of commercial development. "The real way to make India commercial or industrial is for its citizens individually or jointly to put money down and start industries. Legislation cannot make people enterprising or increase their capacity for work; nor can Government do much except by improving communications by road, railway and sea and by spreading general education of a sound type. Technical or commercial education is useless to a man who has no opportunity of applying his knowledge. Development of industry must come first, development of education will follow. We may also learn from the example of Japan. Men have been asking themselves how it is that the Japanese have taken a place among the progressive peoples of the world. Certainly application to industry and to education are two of the principal causes. There has been practically no talking or political agitation, there has been much action and hard work. Every citizen of India is free to engage in any industry, trade, or profession, and there are signs that thoughtful men in increasing numbers are turning away from the pursuit of political ideas and are turning towards social and sanitary reform, self-help, fullness of self-reliance and industrial hope." He thought that the most pressing needs of the colleges were better teachers and better boarding-houses, to provide which the Local Government would help by grants. To advance research Government intended to create studentships on Rs.100 a month, tenable for three years, and to allot them in the first place to graduates pursuing advanced courses of science, either chemistry or physics, at the Muir College. The students would be expected to help in the supervision of boarding-houses and such other academical work as the Principal might suggest. He had already approved the appointment of an assistant professor in both chemistry and physics at the Muir College. He thought that a province with such a past history as theirs, the centre of the Moghul Empire and adopted home of Persian and Arabic learning, should provide for the advanced study of Sanskrit and Arabic. At Benares College, a scheme was drawn up for such study of Sanskrit, but was not yet adopted. At Aligarh the College had adopted a similar scheme for Arabic, and he had recommended the appointment of a European professor and an Indian assistant professor in Arabic.

Among other measures which will come before the newly-constituted Senate are those which have been passed by the old Senate, but from which the final sanction by the Government of India has been withheld. Such measures are to be reconsidered by the new Senate and will then go up again to the Government for approval. The most important of these are the regulations for a teaching certificate examination, a new set of regulations in law, and regulations for teaching geometry in the manner adopted by the University of Cambridge. Other important measures, which may be expected to come before the Senate shortly, are the introduction of clerical and commercial courses, and special measures raised by the new University Act.

A successful "Old Boys' Celebration" had been held by the staff and past and present students of the Agra College. Athletic competitions and a garden party formed part of the celebration, and an "Old Boys' Association" was formed to collect money for a new hostel.

The United Provinces Government have just issued provisionally a new Education Code, which is to supersede all previous rules and orders on the subject. Sir James La Touche calls attention, in an interesting Resolution, to the "marked tendency in recent years to partition the educational field." Inspectors have specialised in English Schools; Assistant Inspectors in Vernacular Secondary Schools; and District Boards, through Deputy Inspectors and Sub Deputy Inspectors, in Vernacular Primary Schools. The Lieutenant-Governor, while recognising that this specialisation is to some extent inevitable, urges the "necessity for more complete co-operation and more constant communication between officers of the department on the one hand, and the Boards through the District Officer on the other." As matters stand, the Educational Department is out of touch with the District Officer, and this, as Sir James La Touche points out, is "an administrative inconvenience and an injury to education." The District Officer is the foundation on which the whole administrative machinery rests. He is to the people the personification of the *Sirkar*, and it is no doubt true, as Sir James La Touche asserts, that "any movement from which he stands aloof, or which he does not actively encourage and support, is looked on as one that lacks the cordial approval of the Government." Sir James La Touche, therefore, suggests that the Inspectors should take every opportunity of consulting the heads of their districts, and hopes that the District Officer on his part will do everything in his power to assist his educational colleagues. "No branch of the educational system," proceeds Sir James La Touche, "can be regarded as outside the sphere of the head of the district. It is right that they should make their influence felt on the rising generation of educated men, and that they should bring the Department into touch with wholesome local opinion."

GENERAL.

The Director-Generalship of Education has been made permanent, and Mr. Orange confirmed in the appointment. Mr. Alfred Beit has presented to the Government the Frankenwald estate of 1,000 acres for the purpose of furthering education in the Transvaal. The estate, which is twelve miles from Johannesberg, has been enlarged by purchase of other lands to 2,600 acres, and is eminently suited for an Agricultural College.

GEOGRAPHICAL NOTES.

BY

W. H. ARDEN WOOD, M.A., F.R.G.S.

AN article by Dr. Herbertson in the *Geographical Journal* for October summarises recent discussions on the scope and educational applications of geography. It is clear that geographers in different countries are gradually feeling their way to a definition of the subject that shall express adequately its scope as an organised body of knowledge. But there is not, as yet, perfect agreement as to the content of geography even among experts, some, though a minority, regarding its function as merely descriptive, whilst the majority regard it as a science whose business it is to classify geographical phenomena and search for their ultimate causes. In France and America the definition of geography as "the study of the earth as the home of man" finds most general acceptance; but the distinguished American geographer, Professor Davis, has recently proposed a definition which materially enlarges the scope of the science, making it the study of the earth in relation to life generally. This view of the subject is expressed by Professor Dryer in the definition "Geography is the science which deals with the distribution of every feature and the environment of every creature on the face of the earth."

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With regard to the position of geography in education Dr. Herbertson lays stress on the necessity for certain changes in the conception of the subject and in the manner of treating it in order that its educational value may be more fully realised. The arbitrary division into two subjects—physical and political geography—often taken as different courses, should be done away with. The treatment of the subject should be regional: that is to say, the study of a given area should be by natural regions and not by political divisions. Again, much needs to be done to utilise the relationship of geography with other studies, and with ordinary life. On the one hand, it touches history and literature, on the other hand, science. And, as Dr. Herbertson says, "no subject but geography, unless it be sociology, gives the comprehensive outlook on *existing* conditions which must be taken into account in all the larger problems of life, and hence it cannot be ignored with impunity, even in the upper classes of a classical school." He adds that "even in some parts of Germany this is not yet recognised, and the latest congress of German geographers found it necessary to protest against the official point of view," namely, that "geography is but a technical subject valuable only for its practical utility, but otherwise of no educational interest." Dr. Lampe told the congress of a school inspector from Berlin, a privy councillor, who interrupted a headmaster when discussing in a geography class the climate of India and its effects on harvests and famines, reprimanded him for wandering so far from the subject, and forthwith began to question the class himself on the capes, mountains, and rivers of Asia."

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A useful piece of work has been done by a committee of the Royal Geographical Society appointed to revise the nomenclature of the larger physical features of England and Wales. The place-names in local use refer chiefly to the smaller physical features, and the larger physical features, which alone can be named in a small-scale map, are often without appropriate names. A map is shortly to be published by the Royal Geographical Society, giving the name suggested by the committee. Instances of the nomenclature adopted are those of the constituent members of the Oolitic ridges: Cotteswold Hills, Edge Hill, the Northampton Uplands, the Lincoln Edge, and the North York Moors; those of the Chalk ridges are: on the south, the Western Downs, Hampshire Downs, and the Weald, and on the north White Horse Hills, Chiltern Hills, East Anglian Ridge, and Lincoln Wolds.

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The *Times* of August 24th gives a summary of a paper on the "Malabar Coast" read before the British Association by an Indian educationalist, Mr. R. S. Lepper, of the Maharaja's College, Trivandrum. Mr. Lepper describes the controlling factors of the geography of the region of India as the Western Ghats and the South-West Monsoon. Hence the mountains are deluged with rain during the summer months; the climate is very moist, and the range of temperature slight. The mountains and hills are covered with dense forest. Owing to its comparative isolation the region has preserved from pre-Aryan times much that is distinctive in its civilisation. Dress, arrangement of hair, architecture, and family system are all quite distinct from what is found on the other side of the Western Ghats.

* * * *

The common explanation of the irregular wrinkling of the surface of the earth's crust is that it is due to the contraction in bulk caused by slow cooling, and a convenient illustration of the process has been afforded by the folds produced in the skin of a shrivelled apple. A discussion at the last meeting of the British Association shows that this explanation is no longer considered satisfactory. The President of the Geological Section said that movements of the earth's crust were essential to the existence of the land surface, for in their absence all rocks projecting above the sea would be worn away and the globe would be enveloped in one continuous ocean. He pointed out that while some held that the shrinking of the globe by cooling and the efforts of the crust to adapt itself to the shrinking interior were the prime causes of the irregularities of the surface, others maintained that the scale on which the rocks of the crust had been disturbed was out of all proportion to the shrinking that could be atttributed to such a cause. The veteran geologist, the Rev. Osmond Fisher, said that he used to think that the corrugations of the earth's crust were due to compression through the shrinking of the interior, but that he had calculated the thickness of the layer of the corrugations so produced and had found it far short of that which the existing inequalities of the earth's surface would form if levelled down. Several other theories to account for the facts were adduced, but after a prolonged discussion the question was left open.

SCIENCE NOTES.

BY

WILLIAM JESSE, M.A., F.Z.S.

SIR JAMES DEWAR has discovered that wood charcoal, at very low temperatures such as that of liquid air or liquid hydrogen, absorbs gas so well that it can be employed for procuring a very perfect vacuum. Professor Dewar has also found that a rapid mode of extracting oxygen from the air is to absorb it by wood charcoal at low temperatures and then allow it to escape at ordinary temperatures. The same scientist has also discovered the element helium to exist in solution in both rain and sea water. He considers it to be one of the most widely but thinly dispersed of the elements, and its boiling point he calculates to be only some five or six degrees higher than the absolute zero of temperature.

Radium also exists in minute quantities in solution in spring water. According to the Hon. R. J. Strutt, in a communication to the Royal Society, the annual delivery of radium by the King's Bath spring amounts to about one-third of a gramme, or about five English grains. The element occurs both in the water and in the deposit, its percentage being, of course, much higher in the latter. Dr. J. Turesh analysed the Buxton springs and found them also to hold the element "in a proportion not very different from what was found in some of the Bath deposits." It is not unlikely that the radio-active elements will be found in most hot springs, being derived from rocks which lie far below the surface of the earth's crust.

The question of discovering an antidote for snake-poison is always one of the greatest interest to dwellers in tropical countries, and the latest attempt to answer it, as given in one of the latest numbers of the *Indian Medical Gazette*, is especially worthy of study on account of the weight of authority with which it is supported. In an article by Sir Lauder Brunton, Sir Joseph Fayrer and Mr. Leonard Rogers, I. M. S., on "a method of preventing death from snake-bite, capable of common and easy practical application," the authors propound a remedy which, if it prove successful, should do much to rid noxious reptiles of their terrors. Investigations by the two senior authors and the practical experiments carried out in this country by Mr. Rogers give hope that the new antidote may prove of real efficacy. In order, however, to prevent any misconception it is necessary to state that further experiments carried out since the reading of the paper before the Royal Society, and which form an addendum to the article in question, tend to show that there are certain drawbacks to the newly-advocated treatment. So long ago as 1869 Sir Joseph Fayrer made experiments which seemed to show that permanganate of potash had power over certain snake-poisons, and Dr. Vincent Richards, who lost his life while carrying out experiments with poisonous reptiles, advocated the use of the hypodermic injections, having ascertained that a solution of this salt immediately after the bite had the power of neutralising its effects, although in the case of the cobra it was useless if the poisoning symptoms had had time to develop. The objection to this is that the poorer native, who is the chief sufferer, is quite unable to purchase and carry about a hypodermic syringe. Anything which will be of use to him must be such as can be always ready to hand, easily applied, and, above all things, cheap.

In the case of snake-bite the deadly effects so soon manifest themselves that time is everything, and should it be necessary to remove the patient for treatment to a hospital, his case may be looked upon as hopeless. To quote from the article 'under discussion :—" About two years ago, one of us (Brunton) was asked, on behalf of a young officer going out to India, to design an instrument which might be used in case of snake-bite. He did so accordingly, and he has since had a similar one made for him by Messrs. Arnold & Sons, which seems to combine the three requisites just noted. It consists of a lancet-shaped blade about half an inch long, long enough, in fact, to reach the deepest point of a bite of the largest snake. He has had some instruments made with a double edge like an ordinary lancet, and others with one edge sharp and the other edge blunt, so as to press in the permanganate. The lancet is set in a wooden handle about an inch and a half long, which is hollow at the other end, so as to form a receptacle to hold the permanganate. Two wooden caps are fitted over the ends of the instrument, one to keep in the permanganate and the other to protect the lancet. Such an instrument, if turned out in large numbers, could be sold at such a small price as to be within reach of even the Indian labourer, and might be sold everywhere in the same way as packets of quinine are at present." The method of applying the remedy is to first tightly bandage the limb above the bite, to prevent, so far as is possible, the spread of the poison, and then to cut down freely into the wound with the double object of allowing contaminated blood to escape and the certain admission of the permanganate, which should be mixed with saliva and rubbed well in. To a certain extent the bites of animals treated in this way have been prevented from proving fatal, but further data are still required before conclusive statements can be made. According to Mr. Rogers, however, local treatment by permanganate in the manner already described "may be expected to save the lives of persons bitten by other than large cobras and very large kraits if the treatment is carried out within from fifteen to thirty minutes ; but in the case of the two mentioned, it would have to be begun very quickly to be certain to save life, as could be done if one of Sir Lauder Brunton's instruments was ready to hand, or anti-venin also available in the case of the cobra."

The only difficulty that seems to present itself to us as to the wider use of those instruments is the question of cost. Small though it may be, the Indian peasant is most unlikely to spend his hard-earned pice on a thing which, in his eyes, he may never want. Furthermore, the extremely scanty garments which most of them wear prevent them from carrying anything of this nature about their persons. Still there is every reason to give those who wish the opportunity of possessing one of the valuable aids. If they never want it themselves, which is fervently to be hoped, it is possible that they may find it of inestimable value should some friend or neighbour be unfortunate enough to be bitten by a reptile.

With the approach of the "cold weather" it is to be feared that plague will once more show an ominous tendency to increase throughout the country, and for this reason some remarks by Mr. Hankin, the Government Specialist, may not prove uninteresting. In a carefully thought out paper, which he read before the members of the British Association this year, the Chemical Examiner and Bacteriologist to Government opined that the original outbreak in Bombay may have been due to pilgrims from Garhwal, where the disease is endemic. Once every twelve years a religious festival is held at Nasik, to which numerous fakirs resort, even from the Himalayas, and a comparison of dates which had been prepared certainly appeared to be in favour of this theory. To Sir William Ramsay, who enquired how so lightly-clad an object as a fakir could carry the disease, Mr. Hankin explained that their long matted hair was probably the means of dissemination, and that, as their bodies were often extremely dirty, the germs might possibly be carried in the folds of the skin. In the discussion which followed, Sir R. Condy said that, though monkeys and rats were generally held to be responsible for the conveyance of the disease, he was of opinion that fleas were in all probability to blame. More than one species of flea affected the rat, and, he thought it not improbable that one of these varieties might also attack human beings, a theory that Mr. Hankin seemed to consider worthy of further investigation. The Indian specialist told an amusing story which illustrates the opinion held by some Easterns of the science of Europe.

Being acquainted with an Indian fakir, who not only knew English, but had studied science at more than one English University before entering upon his present mode of life, Mr. Hankin presented him with a copy of Max Müller's "What India has to teach us," and received the following letter in reply :—

"DEAR BROTHER,—These Western scientists are nothing but Messrs. Glowworm & Co. In Europe, where all is darkness, they are shining lights, but in India where we have the light, we see that they are nothing more than miserable insects."

According to the *Statesman*, a Dr. Ekinger of Tegal, in Java, positively maintains that he has not only found malaria parasites, but can breed them, and appears convinced that his discovery will overthrow the mosquito theory of malaria advanced by Koch, Ross, and others. The Doctor found these parasites to lodge in the upper end of the throat, to which they are carried by the breath. Whether Dr. Ekinger's belief that malaria is communicated by breathing the parasites is correct or not remains to be proved. Meanwhile it appears fairly evident that the destruction of the breeding haunts of mosquitoes has been accompanied by a corresponding dimunition in the fever rate, while the experiments made some two or three years ago in the Roman Campagna pointed most distinctly to a relationship between the insect and the disease. It is a curious thing however that, during the brief summer in the Far North, mosquitoes are present in clouds, and bite so viciously that the inhabitants smear themselves over with a tarry preparation to repel their attacks. In Alaska the gold miners are so plagued that they have adopted a new style of headgear—namely, a hat of linen and gauze which covers all the face and neck. Happily these polar insects do not appear to be conveyers of malaria, which is fortunate as their numbers and the extent of their breeding grounds would make a campaign against these pests practically impossible.

CORRESPONDENCE.

SIMILARITIES IN EASTERN AND WESTERN LITERATURE.

SIR,

IT is a rare pleasure to be always on the look-out for striking similarities, especially in literature, between the East and the West. Very often one comes across stray thoughts that remind a Sanskrit student reading English authors of certain phrases or sentences in his own literature, and prove that Nature is alike everyhere, and that identical ideas have woven themselves into the minds of human beings situated far distant from one another, both in time and place. Such phrases, as well as single words, are generally the province of philologists and specialists in literature. But students, too, find the comparison interesting.

While perusing De Quincey, one reads of the *Armilustrium*, which was an occasion celebrated as a festival among the Romans in order to effect purification of arms. It was held every year "on the 19*th October*, when all the citizens assembled in arms and offered sacrifices in the place called Armilustrium or Vicus Armilustri." An Indian student, when he reads this, will not fail to recollect the Dasara festival, when similar sacrifices are offered and with exactly similar motives. Strange to say, the time too is also similar, inasmuch as the celebration falls a little before the Devali holidays, which brings us to about the 19th October of the Roman festival.

On the Hindu holiday of Dasara, moreover, arms are exhibited in a big pageant, and the devotees of arms and armour, *viz.*, the military class, parade themselves to seek the altar of worship, where they duly repair and offer their holy prayers in the presence of the priests.

Another instance is supplied by the Roman custom of entertaining the relations and friends of the deceased persons after the funeral ceremony is over. This custom survived, be it remembered, till the time of Hamlet, prince of Denmark—not its composition of course. Among the Romans, the custom to which the origin of the one prevailing in Hamlet's time can be traced was known by the name of *Cena feralis*. On the occasion of celebrating the funeral feast, milk, honey, wine, etc., were offered to the spirit of the dead person. Now, amongst the Hindus who continue to perform up to this day the funeral rites, the necessary materials of worship are milk, curds, honey, ghee (clarified butter), and sugar. These, be it remarked in passing, are as well required for the purpose of adoration on all other occasions.

The illustration to be next chosen will be found more striking: The period in a man's life, somewhere between boyhood and growing manhood, is the period of a palpable change in his career. Not only does the East, but even the West, regard this period as a transition, for the most part blessed. In the words of De Quincey: "Noble are the impulses of opening manhood, where they are not utterly ignoble; at that period, I mean, when the poetic sense begins to blossom, and when boys are first made sensible of the paradise that lurks in female smiles." With this, moreover, the words of Keats, written by way of introduction to his "Endymion," will bear a happy resemblance: "The imagination of a boy is healthy; and the mature imagination of a man is healthy; but there is a space of life between, in which the soul is in a ferment, the character undecided, the way of life uncertain, the ambition thick-sighted." Now, the same idea expressed by two different authors in the West bears a striking resemblance to one in Oriental literature, which need not be cited here. It will be sufficient, however, to add that in almost all nations, the time between the eighteenth and the end of the twenty-fifth year is reckoned as the one that is very likely to give a lasting colour to life.

Lastly, in Shakespeare's *Hamlet* (I., 4, 36) occurs the sentence: "The dram of base doth all the noble substance often dout to his own scandal." This is almost identical with the idea expressed by Kalidasa—the Shakespeare of India—in his *Kumar Sambhava*, along with a slight correction made by his commentator: *Dáridrya dosho guna raśi naśi.*

DAJI RAJ HIGH SCHOOL,
WADHWAN CITY,
9th October 1904.

I remain, Sir,
Yours faithfully,
S. S. MEHTA.

"STILL MORE GREATER THAN."

SIR,

WE all know that in the days of Shakespeare double comparatives were in vogue, but it is amazing to find them used in Victorian English. In Hall and Stevens' Geometry the phrase "still more greater" is to be seen very freely used, *e.g.*, page 30. In Pott's Geometry the corresponding phrase is "much more greater." But in this last phrase the three words are not to be taken together. For instance, "much more is the angle ABC greater than the angle BAC" does not mean that the angle ABC is much more greater than the angle BAC but that much more, that is to say, by a stronger reason, is the angle ABC greater than the angle BAC. 'Much more' is a correct translation of '*a fortiori*'. "Still more greater" appears to be an inaccurate rendering. I hope you will kindly discuss the point in your columns.

TELANG HIGH SCHOOL,
9th September 1904.

Yours, &c.,
K. R. NANJIANI,
Head Master, Telang High School.

[The two phrases are equally correct. In both "more" qualifies the verb "is"; in the former "much," in the latter "still," qualifies "more." "Still more" means "in an *even* greater degree."—EDITOR.]

REVIEWS OF BOOKS.

OXFORD UNIVERSITY PROGRAMME OF SPECIAL STUDIES FOR 1904-05. (CLARENDON PRESS. *6d.* net.)

NO student who intends to go to Oxford during the present University year should fail to read this pamphlet. It is an enlargement of certain portions of "The Students' Handbook," and appears now to be published for the first time. It contains a list of the lectures and of the facilities for advanced or research work, and enumerates those lectures of ordinary College work which are of such special kind as to be suitable for advanced work. As an illustration we quote the assistance given to the advanced student of the English language and literature. The Professor of English advises students and lectures on Middle English and Beowulf. The Professor of Poetry lectures on Shakespeare or other literary subject. Professor Raleigh lectures on Romantic Poetry in the Nineteenth Century and personally advises students. There are also advanced lectures on Shakespeare, the Practical Study of Languages, Phonetics, and English Literature generally. This is in addition to ordinary College work.

LONGMANS' PICTORIAL GEOGRAPHICAL READERS: THE BRITISH EMPIRE. (1s. 8*d*.)

IN this account of the British Empire, India and Ceylon occupy nearly one-quarter, and Australasia nearly one-half—which is giving the latter rather more than its full share. British East Africa and the Niger Territory and minor English possessions in Africa are not described. The letter-press—largely drawn from the descriptions of well-known writers—deals mainly with the picturesque and is interesting. Statistics are summarized in an Appendix. The illustrations are numerous and attractive, the maps exceptionally plentiful and clear for such a book. The Reader is well suited to inform the student and make him proud to belong to such an Empire.

HISTORICAL GEOGRAPHY OF THE BRITISH EMPIRE.

By H. B. George. (METHUEN.)

IN this book the study of the geography and the history of the Empire—neither of which can be satisfactorily treated apart from the other—are skilfully blended by a writer who evidently knows his subject—and loves it. A fastidious critic will find many of Mr. George's sentences faulty and not a few ambiguous. But the writer's verve and enthusiasm, his real interest in his interesting subject, make it difficult to quarrel with blemishes which, after all, do not greatly detract from the reader's enjoyment. The companion atlas that is promised will be heartily welcomed.

THE USE OF WORDS. *By Georgina Kinnear.* (MURRAY. 1s.)

THIS is not a manual of etymology, as the title might suggest, but an elementary grammar of accidence with the special object of increasing the power of expression and insuring a correct use of words. It is a little book, clearly and simply written, but suitable for secondary rather than primary school children, and it strikes us as being singularly dull.

THE MASTERS OF ENGLISH LITERATURE.

By Stephen Gwynn. (MACMILLAN & Co. 3s. 6*d*.)

IT is probably true that there are a number of people who desire to be acquainted with the masters of literature without being bothered with minor poets, novelists, etc., and who also desire to know the characteristics of great individuals rather than of great periods. Indeed, we have heard it argued that literature should be taught in our Indian Universities through the works of a few representative men of all periods, rather than by a detailed study of special periods. Mr. Gwynn's book aims at satisfying these demands, and its appearence is justified by the existence of the demand and by the handling of the subject, which, though open to some objections, shows vigour and independent and cultivated taste. The first objection is that Mr. Gwynn has attempted too much in his limits. He hardly supplies enough of biography, description, extract or criticism, of the really great to "supplement the partial knowledge" of those for whom he caters. Secondly, the method hardly admits of illustrating development in literature, or the evolution of particular branches. While, however, Mr. Gwynn's method is liable to criticism, we do not find anything to object to in his own criticism.

STYLE IN COMPOSITION. *By W. J. Addis.*

(ALLMAN & SON. 2s.)

STUDENTS are always asking what and how they shall read to improve their style, and the question is not easy to answer satisfactorily. Style is such an intangible thing that no mechanical analysis will suffice to teach it, and exact imitation of any particular author is neither possible, nor desirable if it were. Mr. Raleigh's book is too vague for Indian students; Bain's "Rhetoric and Composition" too minute and lengthy. Mr. Addis tries to hit the mean and to supply the young student with the elementary facts of style in a precise and clear but not too detailed manner. We think he has been fairly successful in a difficult task. His book is complete and practical, his counsels moderate, his definitions condensed yet lucid, his examples well chosen, though they might have been more numerous. The student will not become a great writer merely by reading this book. But he will learn much of the mechanism of the art of writing, and he will learn to understand more clearly and use more correctly the language of criticism. In one point only are we inclined to quarrel with Mr. Addis. Archaisms, he rightly says, lend a flavour, but we do not require such flavour in a manual. On page 18 he uses the phrase "roborate a mental appeal," which, though Fuller sets a precedent, seems unneccessarily archaic. Nor can we regard "stylic," "vowellic," "detailedly," "inescapably," and "awaredness" as words which the student of style should copy either in respect of their utility or their appearence.

RUDYARD KIPLING: A CRITICISM. *By John M. Robertson.*

(G. A. NATESAN & CO., MADRAS. *As.* 2.)

THIS reprint of two articles from *Indian People* contains a slashing criticism of Kipling's work. Mr. Robertson allows Kipling humour, the faculty of dramatic realisation, the power of vivid and lucid expression, and that is about all. On the other hand, he asserts that his most powerful work (*e.g.*, *Kim*) lacks congruity as a whole; that he is false to the essential truth of human nature in two-thirds of his character work; that while he condemns the vices of Englishmen, he allows his imperialistic prepossessions to prevail over his deliberate moral judgment. He lacks the essential quality of greatness, the power to rise above personal or racial motive to the feelings of mankind. "His normal state of mind is vain glory," not simple pride in his own race but a vulgar hatred of other races, an "under-bred swagger and brawling imperialism" which "humiliates his own race in the act of glorifying it." His very flashes of higher inspiration, *e.g.*, the "Recessional," are either hypocritical or self-condemnatory. He is successful only where he can present vividly types in action. He is "a man of no thinking-power as apart from the faculties of visualisation and imagination."

There is a good deal of truth in this. Most people feel *Kim* to be an impossible character, and that Indian society is not all frivolous and vicious. Few people accept Kipling's picture of the soldier as either complete or true. And many of us are, like Kipling's own school-boy, irritated by blatant imperialism. We agree that Kipling is not so great as he is represented. But we attach a higher value than Mr. Robertson to his humour and his vivid realisation of action, for these two have a wider and more direct effect on readers than psychological analysis, and are, indeed, inseparable from an insight into human nature. And if Kipling's imperialism is rather intolerant, it nevertheless has exercised a very beneficial effect.

EURIPIDES' HERCULES FURENS. *Edited by E. H. Blakeney.*

(BLACKWOOD. 2*s.* 6*d.*)

ANOTHER of Blackwood's excellent illustrated classical texts. A short introduction suggests the relation of Euripides to the earlier dramatists, and calls attention to the rationalistic and modern spirit of Euripides. The notes are full and scholarly. A special feature in them is the excellent translation of the choric odes and the summaries of the dialogue. Indian students could not have a better little edition.

THE SON-IN-LAW ABROAD. *By P. Ramchandra Row.*

(NATESAN & CO., MADRAS. *As. 6.*)

IN India the son-in-law seems to be the butt of the jester as the mother-in-law in England. This is a collection of folk-tales about him and other matters, which is amusing and interesting. One or two of the stories seem to show traces of the influence of the English comic papers, but most seem purely native. Stories 12 and 26 should have been omitted. Decency ordains reticence on such matters.

WHITEAWAY, LAIDLAW & Co.'s CHRISTMAS ANNUAL, 1904. *Re.* 1.

MESSRS. WHITEAWAY, LAIDLAW & Co. are to be congratulated on the high quality of the letterpress and pictures of their Annual, which they claim to be the first of its kind that has been prepared and published by an Indian firm. Their interesting experiment deserves complete success.

BOOKS RECEIVED.

Sir Walter Scott's Talisman. With Introduction and Notes. (*Macmillan & Co.* 2*s.* 6*d.*)
Bacon's Advancement of Learning. Edited by A. S. Cook. (*Ginn & Co.* 3*s.* 6*d.*)
Milton's Paradise Lost. Book VI. Edited by H. B. Cotterill. (*Macmillan & Co.* 1*s.*)
Macaulay's William Pitt. Edited by R. F. Winch. (*Macmillan & Co.* 2*s.*)
An Inquiry into the Principles of Modern Theosophy. By Pestonji A. Wadia. (*B. T. Anklesaria, Bombay.*)
Les Mésaventures de Jean-Paul Choppart. Par Louis Desnoyers. Edited by L. von Glehn. (*Macmillan & Co.* 2*s.*)
Monsieur Pinson. Par Lucien Biart. Edited by Otto Siepmann. (*Macmillan & Co.* 2*s.*)
Matriculation French Reader. Edited by J. A. Perret. (*University Tutorial Press.* 2*s.* 6*d.*)
Lectures Scientifiques. A French Reader for Scientific Students. By W. G. Hartog. (*Rivingtons.* 5*s.*)
An Elementary Treatise on Graphs. By G. A. Gibson. (*Macmillan & Co.* 3*s.* 6*d.*)
Theoretical Geometry for Beginners, Part IV. By C. H. Allcock. (*Macmillan & Co.* 1*s.* 6*d.*)
A New Trigonometry for Schools. By W. G. Borchardt and A. D. Perrott. (*Bell & Sons.*)
A New Trigonometry for Schools, Part II. By W. G. Borchardt and A. D. Perrott. (*Bell & Sons.*)
Arithmetical Examples (without Answers). By W. G. Borchardt. (*Rivingtons.* 3*s.*)
A New School Arithmetic. (4*s.* 6*d.*)
A New School Arithmetic, Part II. (2*s.* 6*d.*) } By Charles Pendlebury, assisted by
New School Examples in Arithmetic. (3*s.*) } F. E. Robinson. (*Bell & Sons.*)
Easy Exercises in Arithmetic. By W. S. Beard. (*Methuen & Co.* 1*s.* 3*d.*)
Algebraical Problems. By K. R. Nanjiani. (*N. M. Tripathi & Co., Bombay.* As. 9.)
Whiteaway, Laidlaw & Co.'s Christmas Annual, 1904. (*Re.* 1.)

OUR CONTEMPORARIES.

IN *The East and the West*, a quarterly review for Missions, Sir Thomas Raleigh has an article on "The Indian Universities Act and the Missionary Colleges." Sir Thomas Raleigh justly attaches a high importance to the work of Missionary Colleges and rightly thinks that if Government insist on having all Colleges of an English type and the Missionaries, in consequence, retire and leave Government to provide for and control higher education, it will be a serious loss to education. Missionary Colleges, he says, "vary widely in merit; some of the best and some of the weakest Colleges are connected with Christian Missions. Among their teachers we may find men of zeal and learning, who chafe under the yoke of a merely examining University, and welcome any endeavour to raise the standard of teaching; there are also men who regard Lord Curzon's reforms with apprehension, because they fear that the standard may be too high, that useful institutions may find it impossible to comply with the provisions of the new law. Both in India and at home I have been told that secular instruction is, after all, not an essential part of missionary work, and that, if Government insist on having Colleges of an English type, missionaries will retire from the field, and leave the Government to provide all necessary resources and to take the entire control of the higher education. This is not the prevailing sentiment of any body of Christian teachers, but it is a sentiment with which we may have to reckon . . . So far as my experience enables me to form an opinion, I should count it a great misfortune if Christian missionaries were to surrender the position which they now occupy as leaders and helpers in the work of education. The progress of Christianity in India may be compared (the metaphor is not exactly new) to the advance of the British Army in South Africa. Our scouting is still somewhat defective; local commanders are often at cross-purposes; frontal attacks lead to disappointing results. The general plan of campaign, which will ultimately enable us to hold the country, partakes of the nature of a turning movement, and from time to time the forces with which we are engaged discover that a whole province has become, for them, untenable. There is much reason to believe that a movement of this kind is turning the educated classes in India, both Hindu and Muhammadan, and I attribute this result very largely to the influence of our teachers. It is difficult for those who have not been in personal contact with Indian students to realise the change which passes over the mind of a clever young Bengali when he has studied his English books under a teacher whose talents and charactor command his confidence. In an Arts College there is, of course, no frontal attack on the beliefs of his own people; but he assimilates, often with surprising intelligence, the beliefs and ideals which have made English literature what it is, and he is led, more by example than by direct moral instruction, into wholesome and honest habits of thought. These good influences remain with him when he returns to his own Hindu family life. This kind of English education does not figure in statistical returns, but already it is affecting the literature and the society of Bengal. I will take one concrete illustration to make my meaning plain. I have on my table a life of Sri Krishna, written by a graduate of Calcutta University. The author's object is to ignore and leave out of sight all that is immoral and absurd in the popular legend; to present Krishna as a saviour, possessing supernatural powers, but commanding reverence by the sweetness and nobility of his humanity. There is no avowed imitation of the Gospels, but one is justified in saying that but for Christian education the book would not have been written. There are, as everyone knows, Indian students who turn eagerly to the sceptical side of European science, and dispose of the Christian faith by an easy reference to Herbert Spencer or Grant Allen. These men must be met on their own scientific ground, and, if their theories are crude and defective, we can only supply the defect by seeing that the Christian elements in our teaching are not pushed out of sight, and though our divisions may supply these critical minds with additional arguments for scepticism, it is important that different schools of thought should be fairly represented. No one who has visited the Jesuit Colleges in India will refuse to acknowledge the services which they render to the cause of education; but I for one should be very unwilling to give my Jesuit friends a monopoly of Christian teaching in the Universities. For the foregoing and other reasons, I earnestly hope that the Arts Colleges under misssionary management will hold their ground, and that the friends of Missions at home will rise to the present occasion and make every effort to fit them for their duties. They are doing their work in the face of hostile criticism; both Indian University men and English officials have been heard to say that Missionary Colleges cannot be satisfactory, that their tone is popular rather than academic, that they are carried on merely as adjuncts to preaching and proselytising. We have an answer to all such disparaging remarks if we can point to Missionary Colleges which are undeniably and in all points efficient instruments of education."

GOVERNMENT NOTIFICATIONS.

PERMANENT NOTIFICATION.

No. 3197 OF 1902-03.

POONA: OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
18*th July* 1902.

INDIAN EDUCATION.

The Educational Department is not responsible for anything which may appear in this publication, unless over official signature.

F. G. SELBY,
Acting Director of Public Instruction.

List of appointments, etc., in the Educational Department, from 11th October to the 10th of November 1904.

APPOINTMENTS MADE BY GOVERNMENT.

7th October 1904—Mr. Chaturbhuj Lalchand Ojha, Deputy Educational Inspector, Sukkur, has been granted privilege leave for three months.

Mr. Udharam Chandumal Thadani, B.A., is appointed to act as Deputy Educational Inspector, Sukkur, during the absence on privilege leave of Mr. Chaturbhuj Lalchand Ojha, or pending further orders.

12th October 1904—Miss M. E. Chubb has been appointed by His Majesty's Secretary of State for India to be Inspectress of Girls' Schools in Sind, *vice* Miss A. M. Forbes, resigned.

19th October 1904—The following appointments are made:—

Mr. Keshavlal Harshadrai Dhruva, B.A., to be Head Master, Nariad High School, subject to the lien on the appointment of

Mr. Dorabji Hirjibhai Vachha, M.A., transferred. Mr. Karamali Rahim Nanjiani, B.A., to act as Head Master, Broach High School, pending further orders.

Mr. Jekisandas Pranjivandas Shroff, B.A., to act as Head Master, Godhra High School, *vice* Mr. Karamali Rahim Nanjiani, B.A., pending further orders.

APPOINTMENTS MADE BY THE DIRECTOR OF PUBLIC INSTRUCTION.

12th October 1904—Mr. D. H. Vachha, M.A., Head Master, Nadiad High School, and Acting Head Master, Broach High School, is appointed 1st Master, in the Elphinstone High School, subject to the lien of Mr. S. G. Jayakar, lent to the Dharampur State.

27th October 1904—Mr. M. P. Metha, Head Clerk, Deputy Educational Inspector, Ahmedabad, is appointed 8th Clerk, in the Office of the Educational Inspector Northern Division.

10th November 1904—The following appointments are made in the Elphinstone High School, Bombay :—

Marathi Side.

Mr. P. N. Joshi, B.A., 3rd Assistant, to be 2nd Assistant.

Mr. A. M. Athvankar, B.A., LL.B., 4th Assistant, to be 3rd Assistant.

Mr. S. G. Bhanap (Shastri), 5th Assistant, to be 4th Assistant.

Mr. J. D. Esperance (Drawing Master), 6th Assistant, to be 5th Assistant.

Mr. W. H. Khare, B.A., 7th Assistant, to be 6th Assistant.

Mr. T. D. Chitre, M.A., LL.B., Probationary 8th Assistant, to be Probationary 7th Assistant, but to continue Acting 2nd Assistant in the High School for Native Girls, Poona, till further orders.

Mr. R. B. Bhagwat, M.A., Probationary 9th Assistant, to be Probationary 8th Assistant.

Mr. B. K. Dhurandhar, B.A., LL.B., Probationary 11th Assistant, to be Probationary 9th Assistant.

Mr. A. H. Kher, B.A., Probationary 12th Assistant, to be Probationary 10th Assistant.

Mr. B. N. Vagal, B.A., Probationary 13th Assistant, to be Probationary 11th Assistant.

Mr. B. S. Ezikiel, B.A., Probationary 14th Assistant, to be Probationary 12th Assistant.

Mr. S. K. Katti (Shastri), 15th Assistant, to be 13th Assistant.

Mr. V. R. Sohoni, B.A., Probationary 16th Assistant, to be Probationary 14th Assistant.

Mr. K. B. Gokhale, B.A., Probationary 17th Assistant, to be Probationary 15th Assistant.

Mr. N. C. Paranjpe, B.A., Probationary 18th Assistant, to be Probationary 16th Assistant.

Mr. N. M. Joshi, B.A., sub. *pro tem.* 17th Assistant, to be Probationary 17th Assistant.

Gujarati Side.

Mr. M. N. Choksi, B.A., sub. *pro tem.* 18th Assistant, to be Probationary 18th Assistant.

Mr. M. K. Dandekar, B.A., sub. *pro tem.* 20th Assistant, to be Probationary 20th Assistant.

Poona: Office of the
Director of Public Instruction,
15th November 1904.

J. G. COVERNTON,
Asst. Director of Public Instruction.

GOVERNMENT EDUCATIONAL LIBRARY, BOMBAY.

(NEXT TO SMALL CAUSES COURT.)

1. The following new books and fresh additions are now available in the Library.
2. The Library is open to the public every Saturday from 7 to 11 A.M. (Bombay time), and on other days by arrangement with the Curator.
3. See notice in *Indian Education* for August, 1902, page 55.

Poona, 10th November 1904.

M. N. SAHASRABUDHE,
Ag. Educational Inspector, C. D.

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
	CLASS 6 :—*Arithmetic.*				
C. Pendlebury, M.A.	New School Arithmetic	George Bell.	0	4	6
Do. ...	Do. do. Part II.	Do. ...	0	2	6
Do. ...	New School Examples in Arithmetic	Do. ...	0	3	0
	CLASS 9 :—*Botany.*				
Ella Thomson ...	Botany Rambles, Part III.	Horace Marshall.	0	1	0
	CLASS 25 :—*English Language, etc.*				
	The Carmelite Classics :—				
C. T. Onions, M.A.	Chaucer: The Prologue to Canterbury Tales ...	Horace Marshall.	0	0	6
Do. ...	Goldsmith : The Deserted Village	Do. ...	0	0	4
Do. ...	Milton : Comus	Do. ...	0	0	6
C. L. Thomson ...	Do. L'Allegro and Il Penseroso	Do. ...	0	0	4
Do. ...	The Adventures of Beowulf	Do. ...	0	1	0
	CLASS 26 :—*English Readers, etc.*				
	Nelson's Junior Supplementary Readers :—				
	Stories from Grimm, Book I.	T. Nelson...	0	0	6
	Do. do. Book II.	Do. ...	0	0	6
	The Temple Infant Readers :—				
	No. I.	Horace Marshall.	0	0	4
	No. II.	Do. ...	0	0	4
	No. III.	Do. ...	0	0	6
C. L. Thomson ...	The Preparatory Temple Reader	Do. ...	0	1	0
	CLASS 29 :—*French.*				
Violet Partington..	Des Vacances à Paris	Horace Marshall.	0	1	6
	CLASS 30 :—*Geography.*				
	The World and Its People—The British Isles ...	T. Nelson...	......		
	CLASS 32 :—*Geometry.*				
H. S. Hall, M.A., S. H. Stevens, M.A.	A School Geometry, Part VI.	Macmillan...	......		
	CLASS 33 :—*German.*				
Marguerite Ninet...	Deutsche Sagen	Horace Marshall.	0	1	6
	CLASS 38 :—*History, etc.*				
	Illustrative History :—				
E. I. Balley, R.A. ...	British and Old English Period	Do. ...	0	2	0
N. L. Frazer, B.A.	Tudor Period	Do. ...	0	2	0

EDITORIAL NOTICE.

Correspondence and literary contributions are invited from all who are interested in the educational problems of India. Accepted contributions will be **paid for.** *The moderate and well-worded expression of individual opinion will be welcome, and consideration will be given to all criticism which is sound and really genuine—containing nothing offensive, and not being the expression of personal grievance. Stamps should accompany the MS. if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss. All literary communications should be addressed to—*

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गुरुकुल पुस्तकालय
कांगड़ी—हरिद्वार

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INDIAN EDUCATION.

We,—we have chosen our path,
Path to a clear-sighted end,
Path of advance!

VOL. III.] NOVEMBER, 1904. [NO. 4.

EDITORIAL NOTES.

THE formation of the Senate of the Bombay University under the Indian Universities' Act has now been completed. Government has nominated eighty Fellows and the registered Graduates have elected ten. The remaining ten were elected by the ninety already appointed. The numbers of the Senate, therefore, reach the maximum prescribed by the Act, which laid down that the ordinary Fellows should number not more than one hundred and not less than fifty Fellows. Government has been wise in exercising to the full its powers of nomination. The maximum is not a large number, and allowance must be made for the inevitable absence of a small proportion at each meeting from sickness, furlough, and other like causes. It is worth while to examine closely the constitution of this new Senate. Of the Government nominees thirty-eight were Europeans, seventeen Hindus, fifteen Parsees, six Mahomedans, and two Portuguese. A rather hasty calculation shows in the whole Senate forty-five Europeans, twenty-eight Hindus, twenty-one Parsees, seven Mahomedans, and two Portuguese. Miss Edge is the only lady Fellow. The new system has, therefore, resulted in giving to the Europeans and the Hindus a relatively larger share of the representation. The Portuguese community require a larger representation. Some forty of the Fellows are engaged in teaching in the various institutions affiliated to the University. About twenty Fellows belong to the medical profession, and the same number to the legal. The various colleges are represented as follow:—Elphinstone College (six), Deccan College (four), Wilson College (three), St. Xavier's College (two), Baroda College (three), Fergusson College (four), Bhavnagar (one), Elphinstone Law School (three), College of Science, Poona (three), and the Grant Medical College (nine). The Guzerat College, the Sind College, and the Junagadh College have no members of their staff appointed. It is not essential that every College should be represented on the Senate by a member of its present staff, still less that they should be represented equally, but it is not desirable that the inequality should be very great. We should have been glad to see a member of the staff of the Guzerat College appointed, and we think that if the Grant Medical College furnishes nine Fellows, the St. Xavier's College Staff should include more than two. On the whole the list of Fellows appears a very satisfactory one. If many familiar names are absent, that is inevitable when the numbers had to be so much reduced, and the absence of some must be put down to their absence from India. We are surprised, however, that the Educational Inspector of the Central Division has been omitted.

* * * *

We said above that it was inevitable that at each meeting some should be absent from their posts. This might be partially remedied by the institution of some system of voting by proxy. Many Fellows live a long way from Bombay, and it involves a considerable expense of money, time, and trouble for them to travel thither to be present at meetings which perhaps do not occupy more than an hour, and at which they are required to do no more than vote for or against a proposal on which little discussion takes place. At the recent election, for instance, the Fellows had merely to place marks opposite the names of those for whom they voted, and to do this many of them had to travel hundreds of miles. It would be quite simple in such cases for forms to be sent from the Registrar's office to be filled in and returned by post. It is important that the convenience of the up-country members should be considered, and that their votes should be always secured ; otherwise the Senate ceases to represent the Presidency and becomes a committee of the inhabitants of Bombay town and island.

* * * *

The list of Fellows nominated by the Lieutenant-Governor for the Senate of Allahabad University has just been published. Allahabad University has influence over the education of a population which stands second only to that of Calcutta, and has affiliated to it some twenty-nine colleges as against Bombay's ten. The percentage, however, of children under instruction in the United Provinces and the Central Provinces is considerably less than in Bombay and Calcutta. It is, therefore, questionable whether the limitation of the maximum number of the Fellows of the Allahabad University to seventy-five is just, and it seems much more questionable policy to refrain from nominating the maximum number. The Lieutenant-Governor, however, has only nominated forty-five instead of the sixty he might have appointed, so that the total number of the Senate will be only sixty. The list of nominations reveals some remarkable omissions, which may, however, be filled up subsequently by election. Of the forty-five nominated, forty belong to the United Provinces, two only to the Central Provinces, one each to Rajputana, Ajmere-Merwara, and Gwalior. This seems less than justice to the Central Provinces, the three colleges of which are all left unrepresented, though it cannot be asserted that Mr. C. H. Browning and the Rev. Dr. Whitton are not suitable representatives. The three colleges of Indore are also left unrepresented. Berar has no representative, but as it has no colleges this is perhaps justifiable. Still more curious is the omission of all doctors from the list. In the Bombay Senate the medical profession supplies a larger number than almost any other. Even if there be no medical college affiliated to the Allahabad University, it seems absurd that there should be no representative of a science which supplies almost all the data of pedagogics. Has the Allahabad University no need for expert advice on the sanitation of schools and hostels, physical exercise, or the effects of study on the eyesight ? Further, though the Roorkee Engineering College is affiliated to the University, there are no engineers in the list of nominations. These omissions seem to prove the need of additional nominations to bring the Senate up to its maximum. Perhaps the Chancellor intends this.

* * * *

The dispute which arose at the election in Madras of five new Fellows by the Fellows already elected was a most unfortunate inauguration of the new University system. It seems that the Registrar carried off the ballot-box containing the voting papers to a separate room, tabulated the results there by himself, and refused to announce the result to the electors and their Chairman. For this procedure the Registrar alleged the instructions of the Chancellor. The Chairman and Fellows protested, and the Chairman was ultimately allowed to examine the voting papers, after the Registrar had declared the meeting closed. Whatever the instructions which the Registrar had received, his action was ill-conceived and has given a handle to all who desire to make the new system unworkable. Already the incident has been interpreted as a proof that the Madras Government are determinated to dominate the Senate and convert it into a purely official body. That there was any such sinister intention underlying the Registrar's action is impossible, but it is clear that the Registrar exceeded his instructions.

* * * *

In the articles from the London *Times*, a summary of which we gave in "News of the Month" of last number, the writer seemed to pin his hopes of reforming higher education in India on the extension of the boarding-house system. The same remedy is advertised on many sides in India itself. We cannot but think that this is to expect too much of college hostels and to trust too entirely to what can be at the best a means of indirectly affecting character and of slow effect. The educational value of hostels is indubitably great and their extension very desirable. But though every college had good boarding accommodation for every student who desired it, the problem of higher education would not be even half solved. Hostels depend for their utility to a large extent on the use which is made of them. They may be mere "hotels," instead of furnishing the corporate life which is their *raison d'être*. And even if the hostel be all that is desired, its effect must still depend on the character of the teaching its occupants receive. Higher education, we believe, must seek its panacea rather in improved methods and subjects of tuition.

EDUCATION IN ENGLAND.

IN each division of the United Kingdom educational affairs are in a critical state. The decision of the Government to abandon the Scottish Education Bill has postponed for the time the reorganisation of the local administration of education in Scotland. It is probable that Scottish secondary education will gain by the postponement. Though the measure introduced into the House of Commons this summer had many excellent points, discussion revealed several flaws in the plan, and before Parliament meets again it will be possible for the Government to redraft the Bill in such a form as to commend it more unreservedly to Scottish opinion. Far more serious is the effect upon certain educational institutions in Scotland of the decision of the House of Lords, entitling the Free Church to the property claimed by them from the United Free Church in the recent litigation and under the model trust deed. What is to become of the colleges, of the normal schools and of the other educational agencies which have been conducted by the United Free Church since its union with the United Presbyterian Church? It is understood that the effect of the House of Lords' decision is to entitle the 'Wee Church' to these properties and to give it control over what is taught in them. The Free Church propose a temporary arrangement by which, until June 30th, 1905, the colleges in Glasgow and Aberdeen, the normal schools and other educational agencies would be allowed to remain in the charge of the United Free Church 'on an honourable understanding that the premises in question shall not be used for dogmatic teachings contrary to the principles of the Trust as enunciated by the House of Lords, nor for attacks on the said judgment.' But herein lies the crux of the difficulty. The assembly of the Free Church admit that 'the administration of the colleges constitutes one of the greatest difficulties even from the point of view of a temporary arrangement, because the fact cannot be disguised that among the professors can be found those who in doctrine have most violently diverged from the doctrinal basis of the Free Church.' At the time of my writing, it is understood that the leaders of the United Free Church regard the terms proposed by the Free Church as entirely unacceptable. It is pointed out that so small a Church would find it difficult to staff the colleges and useless to support them on their present scale. But in the teaching work of the colleges lie the roots of the difference between the two bodies. And the assembly of the United Free Church has unanimously adopted a resolution which eloquently maintains the principle of freedom in theological investigation and the right to revise in the light of new knowledge traditional statements of religious belief. 'In the confession of her faith regulating the doctrinal obligations which it is fitting to impose upon her office-bearers, and most of all in setting forth the doctrines of the Gospel which it is her privilege to proclaim, the Church ought, and this Church has ever felt herself bound and entitled, on fitting occasion with due reverence and caution, with a deep sense of the interests involved, to revise her statements and confession and to readjust the congressional obligations of her office-bearers.'

In Ireland there is evidently a good deal of dissatisfaction with the working of the Office which is charged with the duty of superintending the primary schools. Some of its critics contend that what Ireland needs is a Board of Education on the English lines to deal with elementary and secondary education. But the ecclesiastical and political animosities which embarrass the Irish central administration in so many ways do not encourage the hope that educational peace and reform can be secured by any process so simple as that of altering the method of central control. The project of establishing a Roman Catholic University with large subsidies from Government is apparently as far as ever from being realised. The fact is that any comprehensive settlement of the problem of national education presupposes a readiness to come to a working agreement on the great matters of national life. In Ireland at present there is unfortunately no such readiness. The best hope for the future lies in the work which Sir Horace Plunkett and his colleagues are steadily carrying forward to the great benefit of Ireland's economic prospects and with an assuaging effect upon some traditional animosities.

In Wales, feeling runs high on the question of the administration of the Education Act by the County Councils. Parliament, before its rising, passed a measure which in the King's speech is described as 'a Bill for securing that the educational reforms embodied in the Act of 1902 shall be impartially applied for the benefit of all children attending public elementary schools in England and Wales.' The measure thus described is called the 'Education (Local Authorities' Default) Act.' Its purpose is to arm the Board of Education with a weapon with which to overcome the opposition of recalcitrant local education authorities. The Welsh County Councils strongly object to the Education Act of 1902 on the ground that it requires aid out of rates to be given to voluntary (chiefly Church) schools which are not under full popular control. They resent the way in which the Act was passed, in the teeth of Non-Conformist protest, by the majority of a House of Commons which had been elected on the special issue of South African policy at a time of crisis in imperial affairs. They consider that it was a breach of faith to use the majority thus obtained for a purpose abhorred by great numbers of those who for patriotic reasons had refused to vote against the Government at a time when the British cause in South Africa would have been injured by the overthrow of the Ministry in power. The Welsh Parliamentary representatives declared, before the Education Bill became law, that they would resist its operation in the Principality. And, under Mr. Lloyd George's leadership, they have kept their word. The greater number of the Welsh County Councils have decided to refuse to aid out of rates any elementary school which is not under popular control. To all such schools they are willing to pay the due share of the Parliamentary grant: but subsidise them out of rates, they will not. The Act of 1902, however, puts the Councils under a statutory obligation to do so. The Welsh Councils are admittedly defying the law. But they would urge in their own defence that the Act was forced upon Wales in defiance of national opinion and that the quickest way of getting the Act altered is to make it unworkable. Accordingly they have put the voluntary schools and the Board of Education into a very difficult position. And now the Government have passed this Education (Local Authorities' Default) Act with the object of enabling the Board of Education to make another move in the game. It empowers the Board (1) to declare a local authority in default if it has failed in the performance of its duties in regard to any elementary school, (2) to recognise as managers of that school any persons who are acting as managers of it (*e.g.*, to recognise, if they see fit, the foundation managers alone as constituting the committee of managers of the school), and (3) to supply those managers with whatever funds may be required by them for the maintenance of the school in due efficiency. Any sum thus paid by the Board of Education under this new Act, in aid of the schools to which the local authority may refuse assistance from the rates, is to be a debt due to the Crown from the local education authority and, without prejudice to any other remedy, may be deducted from any sums payable to that authority on account of Parliamentary grants. In other words, if a County Council refuses to aid a Church school from the County rates, the Board of Education may deduct, from the total grant due to the County in respect of provided and non-provided schools alike, whatever sum the Board may think necessary for the due maintenance of the voluntary schools. In such a case the County Council would receive what remained of the Parliamentary grant after these emergency payments had been debited to it, and, in order to make up the deficiency, would have to levy higher rates for the support of the provided schools. The County would thus in the end have to pay as high a rate as would have been necessary, had the non-provided schools been helped by the County Council in the manner contemplated by the Act of 1902.

But it has been the aim of the Board of Education to avoid giving the new measure the complexion of a Coercion Act specially devised for the subjection of the Welsh County Councils. The Act is phrased in general terms applicable to a default in either direction and to a refusal to help a provided as well as a non-provided school. The wording of the paragraph, quoted above from the King's speech, conveys the same impression.

No special mention is made of the difficulty in Wales. The new measure is to secure the impartial administration of the Education Act of 1902 for the benefit of all children attending public elementary schools in England and Wales. This gives the Welsh County Councils an opportunity. It is rumoured that the Welsh members see their way to a further plan of campaign. If the Board of Education proclaim a Welsh County Council as a defaulting authority, it is proposed that all the managers of the Council schools in the area should resign. There would then be large numbers of schools without any managers at all. But the new Act does not give the Board of Education any power to appoint new managers. So the Board would have to manage all the Council schools in the area by direct administration and without the help of any local managers at all. In a district bent on resisting the Board, this task would present serious difficulties. Nor would the difficulties of the Board end there. The only funds out of which the Board could maintain the Council schools, thus thrown upon its hands, would be the Parliamentary grant upon which the maintenance of the non-provided schools (the prime cause of the Board's action) would already make a heavy claim. The Board would thus have to find funds to supply the place of the rates which in normal circumstances would have gone to supply that part of the cost of maintaining the Council schools which was not covered by the Parliamentary grant. And the Board would find it difficult to raise this amount from any funds at its command. In the meantime, the Welsh organisers would open temporary day schools in Non-Conformist Chapels and support them by voluntary subscriptions.

It remains to be seen whether the Welsh County Councils will agree to carry out this plan which Mr. Lloyd George is said to have in mind. But the situation is grave, and one which far-seeing statesmanship on the part of the Government should, and could, have prevented from arising. The smooth working of popular institutions depends upon respect for the law. Here we have a conflict between popularly elected local authorities and an Act of Parliament duly passed though in the teeth of earnest protests and strenuous opposition. The final outcome will almost certainly be an amendment of the Education Act of 1902.

In England, the cost of carrying that Act into operation is proving very serious. There is a dearth of teachers. Salaries are rising. The expenses of administration are great. Trade is bad. Rates are high. Many of the voluntary school buildings are found to be in an unsatisfactory condition. The County Councils feel that they have very little money to spare for secondary education. Many of them are reluctant to spend the large sums required for the better training of teachers. The Government grants for secondary schools are, as compared with the real cost of good secondary education, quite inadequate. But the Treasury itself is hard pressed to find the funds needed for the various functions of Government and for the military and naval services, and is unwilling to increase the grants for education. The local administration machinery set up by the Education Act of 1902 is congested with work. At the same time the need for greatly increased expenditure upon secondary and higher education is urgent. In the elementary schools, the classes should be much smaller and the number of certificated teachers increased. Much should be done without delay for the better training of teachers. And every month seems to increase the dissatisfaction with the kind of education which many of the elementary schools provide.

Palliatives are being tried. The Board of Education have decided to allow a one-year course at a training college in place of the two-year course which has hitherto been the normal minimum. The argument advanced in favour of the change is that if better material can be got for the training colleges and the students come there so well prepared that they can devote the whole of their time at the training college to their professional studies instead of being under the necessity of improving their general education, all that is necessary in the way of technical preparation can be done in one year, and thus at a stroke much of the present training college accommodation will virtually be doubled. Twice as many students can be "trained" on a one-year course as is now possible with a course extending over two years. But the validity of this argument depends upon there being a supply of this more highly educated material, and it is doubtful whether, without great improvements in our secondary schools, this supply will really be forthcoming. There is serious danger lest, for reasons of economy, the value of the training course should be much impaired. This would be a penny-wise pound-foolish policy. The welfare of the schools, now more than ever, depends upon the culture and the efficiency of the teachers engaged in them.

The following table shows the expenses of elementary education in England and Wales for the years 1899—1902, the cost of administration and of buildings being excluded. It will be seen that the Board of Education are not yet able to state the actual financial effects of the Act of 1902 :—

Year.	Total Expenditure.	Met from Government Grants.	Met from School Board Rates.	Met from Voluntary Subscriptions.	Met from Endowments and other Local sources.
1899-1900	£12,045,000	66·7 per cent.	21·6 per cent.	6·7 per cent.	5·0 per cent.
1900-1901	£12,557,000	64·4 ,, ,,	23·6 ,, ,,	6·7 ,, ,,	5·3 ,, ,,
1901-1902	£13,005,000	63·6 ,, ,,	25·1 ,, ,,	6·7 ,, ,,	4·6 ,, ,,

The Board of Education have at present no collective figures as to the amounts expended by local education authorities since the Act of 1902 came into operation. But the imperial contribution given in the third column has increased by £1,248,000. If the expenditure from other than Imperial sources were remaining the same, the proportion of the total expenditure borne by Imperial funds would have increased from 63·6 per cent. in 1901-02 to 73·2 per cent. in 1902-03, and the proportion borne by local funds would have decreased from 36·4 per cent. to 26·8 per cent. But most of the local authorities are improving the education in their schools, and are expending somewhat larger sums than were previously spent from rates. The exact proportion, however, cannot yet be stated.

* * * *

There has been a successful Cambridge University Extension Summer Meeting at Exeter this year. It was found impossible to hold the meeting at Cambridge in consequence of the arrangements which had to be made for the British Association. The main subjects of study were the Age of Elizabeth in History, Literature and Art, the History of the British Navy, the Natural History of the South-West of England, and the Antiquarian and Literary Associations of the South-West. This appropriate programme was much appreciated by a large gathering of students, among whom were many foreigners. The meeting lasted between three and four weeks. The close connexion between the Royal Albert Memorial College at Exeter and the University of Cambridge made this new departure in the organisation of University Extension Summer Meetings at once desirable and successful.

* * * *

Higher education in the North of England has suffered a great loss by the death of Dr. Gurney, Principal of the Armstrong College of Science at Newcastle-upon-Tyne. Dr. Gurney was killed by a fall when climbing near Arolla in Switzerland.

* * * *

Dr. Osler, who has been appointed Regius Professor of Medicine at Oxford, is a Canadian by birth, and has been Professor at the Johns Hopkins University at Baltimore. His appointment is a sign of the increasing intimacy which marks the relationship between the Universities in the English-speaking world.

MICHAEL E. SADLER.

EDUCATION IN THE ARMY.[1]

OUTSIDE of the Army we are apt to forget that a large part of the whole European population of India is composed of the British Army. But it is so. Among 150,000 Europeans in India no fewer than 70,000 are soldiers.[2] The great bulk of these are young men who come to India for a few years and then go back to their own country. Many of them attend the regimental schools to pass for a third class or to try for a second class certificate of education. But the education of this large number of young soldiers who come to India for five or six years only, is of Imperial rather than Indian interest. Except for what he learns of India during his service here, the education of the young soldier in this country goes on much as it does at home. There is, however, a smaller number of soldiers who look to make a career out of the Army and whose period of service and residence here is consequently extended, sometimes for a few years beyond the ordinary term of foreign service, sometimes for the rest of their lives. Some of these men join the Army already well educated and able to pass, when the opportunity offers, into the departments where their career is to lie. Others, again, have to qualify in their own regiments for the promotion at which they aim. To obtain promotion beyond the rank of corporal the soldier has to hold at least a second class certificate; and to obtain warrant rank, or—most coveted step of all—to win a direct commission, the soldier has to gain a first class certificate. The departmental warrant officers in time pass into the official community and are scarcely to be distinguished from the rest of it. It is largely for them and for their children that European schools in India exist. Army schools have in this way no small share in maintaining the standard of education and culture among the European community of India.

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[1] A short account of Army schools will be found in Mr. Nathan's "Review of the Progress of Education in India, 1897—1902." He says that every regiment of British cavalry, every regiment of British infantry and every two batteries or companies of artillery, when brigaded, has a trained Army school-master and a trained Army school-mistress attached to it, the total number of schools being 1,903; elder children's schools 130, infant schools 121, with 1,284 and 1,453 children, respectively. Schools have therefore an average of 10 and 12 pupils, but vary much in size. The Director of Military Education is assisted by two Deputies and six Army School Inspectors. —*Editor.*

[2] Mr. Cameron gives the figures of the Census of 1891. The Census of 1901 returns the European population of India at 123,000 males and 47,000 females, and the strength of the British troops in India in April 1901 as 63,000. But at the time of the Census a large detachment of the British troops of India was absent in South Africa, so that the difference in the figures does not affect the argument.—*Editor.*

The other way in which Army schools affect the question of European education is through the children. The proportion of married people and of children in the Army is necessarily much smaller than in society generally; but every regiment and battery has its married quarters and its own children to care for. The children's education is carried on in the same schools in which the soldiers are trained for their certificates, although for the most part at different hours; and all soldiers' children are eligible for admission. Warrant and commissioned officers are often very glad to avail themselves of the opportunity of a sound elementary education offered by the Army Schools to their children. These children pass in their turn to the hill schools; and the drilling they have received in their first schools is not found to be wasted when they come to prepare for competitive examinations. Others, again, pass into the schools and asylums for soldiers' children (especially orphaned children) that are doing such excellent work in many of our hill stations, and whose pupils fill so many places in the Civil and Military Departments. In these different ways the Army Schools have a closer connection with the other educational institutions of this country than might at first be supposed.

The connection, however, is not an official one. The regimental schools are directly under the military authorities. The Code under which they work is issued by the War Office and is practically the same for all Army schools in the Empire. It is administered by the Director of Military Education in India, with the help of an Inspector for each of the Commands. The War Office, too, appoints the schoolmasters. Most army schoolmasters have had a preliminary training as pupil teachers in the Duke of York's School for Soldiers' Children in London or in the Hibernian School in Dublin. A scheme has lately been started for the establishment of a similar school in Scotland. The want of it has long been felt in that country and in the Army; and the want has made itself felt as much in the paucity of Scottish army schoolmasters as in any other way. The scheme has been started under favourable auspices; and the school, which is to be the national memorial to Queen Victoria, has now been started. It is likely to be in working order next year; and in a year or two thereafter it will begin to supply teachers in the Scottish regiments and the Army. Besides the masters who have passed through the military schools, the corps contains a large proportion of civilian schoolmasters who receive their training in a training college at home and obtain the appointment direct from the War Office. After obtaining their appointments, candidates of both classes have to go through a year's probation at Aldershot, during which they learn about Army schools and are instructed in the methods of teaching most suitable to the Army. At the end of their probation they are examined in their knowledge of practical teaching, including singing, drill and army accounts. Having passed this examination, they begin their work as army schoolmasters.

One of the drawbacks—and it is a serious drawback in the civilian's eyes—is that the successful candidate has to enlist at the end of his probation. It is difficult to see how this could be avoided. It is not a drawback to the candidates—many of them themselves the sons of soldiers—who come through the military schools; and in any case it is soon found to have compensations. The young schoolmaster, who must not be over 25, takes the rank and pay of a staff-sergeant, and is pecuniarily better off than the average teacher of the same age in a national or board school at home. After eight years' service, when he is about, or a little over, thirty, he obtains warrant rank with a comfortable salary that increases up to close on £200 a year, not including free quarters. An army schoolmaster's position is naturally one of much influence. He is the friend and admirer of that class of non-commissioned officer, young, alert and ambitious, which specially deserves the name of the backbone of the Army, and which finds the schoolmaster's help quite invaluable in passing for promotion. He is looked up to with respect by all the men. His rank would secure him respect in any case, but when, as is always the case, he adds the influence of character as well as of education, his position is both influential and pleasant. The writer has been told by a friend, now an army schoolmaster, who was formerly a schoolmaster under a School Board at home, that he much preferred his present appointment in the Army, that he enjoyed the work and the life, and that he considered his prospects on the whole as good as if he had stayed at home. The master's influence with the children is limited only by the comparative fewness of their numbers. The younger children come under the care of the schoolmistress or the governess, as they affectionately call her, and the little ones are as a rule more numerous than the elder children. Schoolmistresses are appointed from home and also in this country, and have the charge of the children up to the third or fourth standard. Their work does not differ in character or in usefulness from the work of other teachers of the young. What gives the master his position of influence is his relation with the men themselves. He is brought into close contact with them, and it is not easy to overestimate the importance of his place in the regiment. The efforts that have been made, and succesfully made, to induce better educated men to join the Army, are bound to increase the schoolmaster's authority and strengthen his position.

At the close of their service schoolmasters are entitled to a pension of £90 a year. Up to the age of 45, however, they are eligible for promotion to a commission with the rank of Lieutenant and the appointment of Inspector. From an educational point of view this is a very interesting appointment. The pay ranges from £200 to over £300 a year. The inspectors are always selected from among the schoolmasters; and every capable, conscientious teacher has a fair chance of rising to the commissioned grade and of retiring eventually with the rank and title of Captain and a pension of £200 a year.

The War Office has solved the question of religious education in its schools and has probably anticipated the ultimate solution of the question in England. The "right of entry" has been carefully preserved to the chaplain and ministers of all denominations, and it is not uncommon to see three chaplains of different persuasions instructing the children simultaneously in different corners of the schoolroom. Many people at home, especially those to whom the present bitter controversy over the question has given deep pain, would welcome such a solution. Schoolmasters in the Army, like other soldiers, may belong to any Church; and the wise impartiality of the War Office, which is always accompanied by encouragement to all denominations, has achieved a solution which does not interfere with the master's work nor with the children's beliefs.

JOHN CAMERON,
Chaplain, Church of Scotland.

MILL AS AN EDUCATOR.

(*Continued from page 109.*)

BUT Mill has done nothing to clear the road from the obstacles that are in his way. He closes his eyes and imagines that all the barriers have disappeared. He even seems to be supremely unconscious of the necessity to show that, *e.g.*, acts of judgment or abstract ideas are nothing but combinations and modifications of reproduced sensations. A few examples may illustrate the difficulties which his theory has to overcome.

Let us suppose we are comparing two sensations or their reproductions in our sensitive memory: the taste of a mango and that of an orange. By examining carefully both feelings, we perceive points of similarity and of dissimilarity, and then we form, perhaps only after repeated attempts, an idea in which these relations are expressed. The question now arises whether this new act is of essentially the same description as the two preceding ones by which we perceived separately the peculiar flavour of each fruit; in other words, whether it is a sensation or not. If it is not a sensation, it is an act in which the mind displays a higher capacity, or in which, as we may say, another mental faculty comes into play. If the act is declared to be a sensation, it is evidently neither that of the mango alone nor that of the orange alone; nor is it a mixture of both tastes, which would be neither the one nor the other, but a new third taste. The different flavours are not confounded or mixed in our consciousness, but clearly distinguished and opposed to one another. They are, no doubt, both represented in one mental act, and do not only coexist in it as sometimes several objects may do in an indistinct act of vision. No, our act may express each one with the greatest distinctness and yet comprise them both; there is not only a variety of sensations, but also an idea of a definite qualitative variety. Now, we observe that each impression we receive through the senses and also its reproduction in imagination expresses only the individual features of one object. Hence we conclude that an act which comprises various objects recognises them as different and states accurately in what respects they are like one another and in what unlike, transcends the range of sensation and imagination and belongs to a different order of cognitive acts. Therefore we prefer to give it a different name, calling the process in which the various sensations are contrasted comparison and the result judgment.

These considerations, I may hope, will also throw some light on Mill's doctrine on the relations of likeness and unlikeness in which the point under discussion could not be avoided. After identifying wrongly, as I intend to show in another context, the objective likeness of things with our subjective perception of it, he declares the act in which we become conscious of resemblance to be a sensation. The term must be interpreted in the same sense in which it has been used previously in regard to the acts by which the two objects are first presented to consciousness. What we called an act of judgment is in Mill's eyes a pure sensation, and he does not even decide whether "the feeling of resemblance" be a third act subsequent to the sensations or not. Evidently he tries to avoid a discussion of the whole question. The feelings of resemblance or dissimilarity appear to him "so far from being capable of analysis that they are pre-supposed in every attempt to analyse any of our other feelings". Thus his position appears unassailable. What we declared a judgment, he pronounces a sensation and a feeling which is "peculiar, unresolvable and inexplicable".

The issue has doubtless been obscured by Mill's idealistic interpretation of likeness and unlikeness; taken in itself, the analysis of these relations does not, it appears to us, defy all attempts of psychologists. But we have at the very outset of our inquiry to distinguish between the notion of likeness and the concrete act or complexion of acts by which two objects are apprehended to be alike. As to the former, likeness between objects may be said to be the statement in abstract form of the physical fact that there are in each object one or more attributes of the same description. In other words, likeness is sameness or equality as to some attributes. Whether this is to be called an analysis or the substitution of a synonym, may be a matter of dispute. We are here concerned with the process by which we become conscious of the likeness of various objects. It has been shown above that analysis can distinguish in it at least three different acts, and there is no reason to doubt that consciousness of resemblance is a different act arising *after* the two sensations. When the comparison of the two objects has been often repeated, the idea expressing likeness or unlikeness may follow instantaneously, but often some measurable time may pass until we become aware of the relation.

Manifestly, Mill has not removed all barriers obstructing the progress from sensation and imagination to the most recondite thought of the philosopher. The importance of the question seems to recommend the consideration of another mental activity which we conceive to differ from sensuous processes, *viz.*, the formation of general concepts or abstract ideas. Countless images of men of all sexes, figures, colours, whom I met during my life, are constantly passing before my mind. Each picture represents only one individual, clearly delineated, if the recollection is vivid, in every feature. If in possession of the required technical skill, I could draw a most faithful sketch of each. However, I am also aware of another impression in my mind which does not contain any single individual feature, but only such notes as are found in absolutely all men. This general concept is not an aggregate of faint remnants of individual representations, an amalgam of blurred pictures of the imagination, even if, as most psychologists assume, some image should always accompany the concept. It exhibits the properties conceived as constituting human nature or necessarily flowing from it in perfect definiteness and distinctness, and it clearly tells us that they can be predicated of all members of the human race. But with equal distinctness we may recall at any moment countless images of faces and figures of particular persons. We conclude that if the abstract idea of man and representations of individual men exist side by side with equal distinctness in the same consciousness, the former cannot be a modified and faint remnant of the latter. It must be an act altogether different from them, and proves the power of the mind of operating in a manner that essentially differs from sensitive perception and imagination.

In his tendency to establish the perfect uniformity of our cognitive states Mill goes undoubtedly too far. He fails to do justice to the higher activities of the mind and deprives them of their distinguishing features without even attempting anything resembling a scientific inquiry. The impression I gain from his treatment of the more fundamental and primitive forms of conscious life is scarcely more favourable. He rejects the common division of feelings into bodily and mental, and seems to imply that we possess no consciousness of our bodily states. "Philosophically speaking, there is no foundation at all for this distinction: even sensations are states of the sentient mind, not states of the body as distinguished from it." It is difficult to conjecture what Mill may have meant by sensations of the body as distinguished from the mind. A body, as completely distinguished from the mind, would be no human body at all, but brute matter incapable of life and sensation. If he opposes the living body, consisting of matter and mind, to the mind alone as the seat or subject of our intellectual operations, his statement is rather obscure in form and, to say the least, very problematical as to its contents. The fact that we are conscious of a sensation of blue, but unconscious of the processes previously taking place in the retina, the optic nerve and the brain, does not prove, as Mill seems to think, that we are not conscious of any bodily states at all. The pressure on the arm caused by a tight bandage, the organic sensations of hunger and thirst and feelings of muscular activity are not conceived as mental states but as states of something that is not completely identified with the mind, as states of the Ego consisting of the mind and some extra mental element. Hence feelings, if taken as objects of our conscious acts, must doubtless be distinguished into bodily and mental.

If the question turns upon the sentient subject, if we have to decide whether the mind alone or the organ as vivified by the mind perceives the sensation, the problem becomes exceedingly intricate and requires the most minute psychological observations. It would be useless to decide the question dogmatically in Mill's fashion, either in one way or the other.[1] We must frankly admit that as logicians we are incompetent on the matter. Psychology might supply the required materials, but to expect that a beginner in philosophy would derive any real benefit from the cursory explanation of the teacher is, in our opinion, an illusion.

Mill's frequent excursions into psychology and metaphysics may to some extent enliven his 'System of Logic' but as far as I can judge for the present they are rather pleasure trips than scientific expeditions.

H. BOESE, S. J.

(*To be continued.*)

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[1] Modern theories of sense perception are by no means inclined to allow to tactual and muscular sensations that prominent and almost exclusive position to which the Associational School had raised it. *Cf.* James' Principles of Psychology, II. 135ff.; Baldwin's Elements, VIII. § 6, IX. § 4; Ladd's Outlines of Physiological Psychology, p. 300ff.

ON THE TEACHING OF TENSES IN LATIN.

AN inspection of the Latin Grammars, chiefly used both in English schools and abroad, reveals the serious defect that Tenses are badly treated in the Accidence, and in the Syntax are arranged in an arbitrary and casual fashion. To teachers who are entrusted with the duty of starting beginners in this staple of education, and who give due thought to the difficulties which confront their pupils, this fact must long have been apparent. In two only of the more recently issued Grammars does the Imperfect at once follow the Present, and the Pluperfect the Past. For years the beginner has had the Future Tenses sandwiched in between. What has been the result? The boy's mind has unconsciously been driven to connect the series—Present, Future, Past, and he has concluded that Past Tenses are formed from Future Tenses, and that Past Time to the Romans depended in some obscure way on Future Time. Worse still, all sequence of thought has been broken, and from my experience in teaching the language I find that very few boys come to Cæsar with well-ordered notions of time as a relation. In fact there is little capacity to separate mentally Past from Present, and the Future is a hazy idea. I would offer a few suggestions on this important question in the hope of inviting criticism.

Firstly, in Accidence let the Imperfect be taught at once after the Present, and the Pluperfect after the Past. The Futures may then follow. Secondly, when the process of memorising has been carried on long enough, say, for two years, to fix the forms by repetition, exercises, and simple translation carried on concurrently, the whole of the verb should be printed again in the Grammar in the order of time, *i.e.*, Past, Present, Future. In this way the pupil will be able to assign the two meanings to the so-called Perfect and to see that the one form has both Present and Past meanings. He may also be told that this is so, because two forms have coalesced into one. In any case he must learn at this stage the fundamental lesson that "Time is relative, and time is also absolute." Thirdly, let the terms 'Primary' and 'Historic' be expelled as useless from all Grammars. I suggest the following as a scheme of tenses for syntactical purposes. It has been used in class for a year, and the terms employed have not been found confusing, as at first sight I thought possible if not probable:—

PERCUTIO, I STRIKE.

		Relative Time.	Absolute Time.
Past	Past	*Percusseram* I had struck	*Percussi* I struck
	Present	*Percutiebam* I was striking	
	Future	*Percussurus eram* I was about to strike	
Present	Past	*Percussi* I have struck	*Percutio* I strike
	Present	*Percutio* I am striking	
	Future	*Percussurus sum* I am about to strike	

		RELATIVE TIME.	ABSOLUTE TIME.
Future	Past	*Percussero* I shall have struck	*Percutiam* I shall strike
	Present	*Percutiam* I shall be striking	
	Future	*Percussurus ero* I shall be about to strike	

Percussi, I struck, is Absolute Past, and covers the whole period from Percusseram to Percussurus eram (when the latter denotes an action really done). Percutio, I strike, covers the period from Past-Present to Future-Present, and Percutiam, I shall strike, the period from Percussero to Percussurus ero. The Future-Future is naturally rare; but *cf.* Cicero Or. I. 52, "Eorum apud quos aget, aut erit acturus, mentes sensusque degustet," where the difference is between Present-Future and Future-Future.

The objects aimed at in the above scheme are—(1) to give in sequence of time any action from the remotest Past to the most distant Future; (2) to mark off clearly the three spheres of Time; (3) to distinguish Time Relative from Time Absolute; (4) to accustom the pupil to take his stand mentally anywhere in time, and from that point as a Present to work back to the Past and on to the Future with confidence, and at the same time to clarify his notions. It will be noticed that some of the Periphrastic tenses find a place, as they should do, for they are an integral part of the verb, not to be relegated to a corner of the book. Those omitted are Percussurus fui, I have been about to strike, which is the immediate Future of Percussi Past-Present; Percussurus fui, I was about to strike, immediate Future of Percussi, Absolute Past; Percussurus fuero, immediate Future of Percussero, Past-Future; and Percussurus fueram, immediate Future of Percusseram, Past-Past. The last two are very rare. The first two may be included in the scheme of tenses.

I think that an understanding of this scheme will remove some difficulties which arise from the looseness of English. The Absolute Present serves as a means to explain the Historic Present and the Everlasting Present, *e.g.*, Men are mortal. The Future is more clearly viewed, and it is possible to explain simply examples like—

> Donec eris felix, multos numerabis amicos.—Ov. Tr. 1, 9
> (Two Absolute Futures.)
>
> Odero si potero. (Two Absolute Futures.)
>
> Qui prior strinxerit ferrum, ejus victoria erit.—Livy XXIV. 38.
> (Past-Future, the cause of Present-Future.)
>
> Qui Antonium oppresserit, is bellum confecerit—C. Fam. X. 19.

Here from a Present-Future point of view both actions are already past and simultaneous. The epistolary use of Tenses becomes an easy matter, Scribo becomes Scribebam, etc., each tense changing into the corresponding one in the Past sphere, whether relative or absolute, except that the Future Absolute, Scribam, becomes the Future-Past, Scripturus eram, though Scripturus fui is strictly correct.

Sequence of Tenses ceases to be a bug-bear, because, as Gildersleeve points out, this rule depends on the fact that Tense means Time, not merely Tense-form. The scheme may be tested for the changes of Tense, apart from Mood, in dependent clauses of oratio obliqua, after a verb of past time, and nothing will prove so plainly to the pupil the need of transferring actions of the Present sphere mentally to the Past by the aid of a printed scheme in place of a set of rules. Finally it seems that before long the old names Perfect and Future-Perfect, Imperfect and Pluperfect must disappear from our Grammars. They are incorrect, inadequate and misleading. Tenses must be named by words denoting time not by words merely denoting the quality of an action.

W. A. STONE.

PUBLIC INSTRUCTION IN THE PUNJAB AND ITS DEPENDENCIES, 1902-03.*

Population.

Males	13,352,514
Females	11,402,223

Male scholars, 242,470 or 12·1 of males of school-going age; female, 27,069 or 1·58. Total expenditure on Public Instruction, Rs.37,63,988, of which Public Funds, Fees, and Other Sources contributed, 56, 26, and 16 per cent., respectively. The expenditure in Native States amounted to Rs.1,82,000, of which State Revenues contributed 90 per cent. In British Punjab there was an increase of expenditure of Rs.3,27,636.

Controlling Agencies.

The constitution of the Circles of Inspection was left undisturbed. The formation of a Sixth Circle and appointment of and additional Inspectress and several Assistant Inspectors is being considered. The Inspecting Agency has lately been increased by the appointment of 20 Assistant District Inspectors.

Collegiate Education.

Colleges 17—in British Territory 14, in Native States 3. Students 1,138 (against 1,244 in previous year). Total expenditure, Rs.1,74,775. Examination results:—

	Appeared.	Passed.
M.A.	35	14
B.A.	291	126 (43·3 per cent.)
LL.B.	55	18
M.B.	2	0
L.M. & S.	37	20
Oriental Languages ...	505	252

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* Report by W. Bell, Esq., D. P. I.

"The diminishing attraction of the legal profession was noted in the Review of last year's report. The greater recognition of the medical profession as offering a career in life is a welcome feature of the year." A system of inter-collegiate lectures in English has been inaugurated at Lahore.

Secondary Education.

300 schools for boys of which 189 are Anglo-Vernacular, 86 High Schools, 214 Middle Schools; 20,988 scholars. Expenditure Rs.10,16,112. The number of schools and scholars has diminished in the year by 51 and 1,200, respectively. This is due to the non-recognition of a number of inefficient Anglo-Vernacular schools. But "the decrease in the number of Anglo-Vernacular schools and scholars is more nominal than real, as such schools as have not complied with the new rules for recognition have been excluded from the returns of Public Schools. All institutions founded by private enterprise are Anglo-Vernacular, and no activity is shown in the promotion of Vernacular education. Moreover, the increase in the number of candidates and passes in the Entrance and Middle School Examinations is evidence of the keen desire for English education." "The introduction of the recognition rules has had a striking effect on sham private schools, but instead of striking a blow at private enterprise in education, as some ill-advised men thought them to be, these rules have been of great use to the private institutions, and as time goes on will prove of real help to all genuine private educational effort."

In the Entrance and Middle School Examinations a better percentage of passes was obtained. In the clerical and commercial examination 19 out of 44 passed. The new rules of recognition for Unaided Schools have improved the percentage of certificated teachers from 6·2 to 14. "The general character of instruction is improving along with the calibre of teachers. Greater attention is now paid to the suggestions of the Inspecting Officers even in Unaided Schools, and methodical and practical teaching are taking the place of the old cram-work. The supply of certificated teachers is still inadequate."

Primary Schools.

2,289 schools, 102,056 boys. Expenditure, Rs.4,64,769. "The year has been one of progress generally. There has been an increase in the number of schools and pupils attending them (chiefly in Indigenous and Elementary Schools in the Rawalpindi Circle). Expenditure from Public Funds has been more liberal and the income from fees larger. The results of the examinations were perhaps not so satisfactory as last year, but the percentage of passes (69·8) is nevertheless distinctly good. The work of the teachers has been generally satisfactory."

"Zamindari Schools are as unpopular as ever." "It is an open secret now that these schools have not found favour with the people, and, among other causes, half-day schooling is mostly responsible for it. Sooner or later they are sure to collapse, and there appears to be no necessity to give them more time for further trial."

Training Institutions.

One Central Training College, five Normal Schools and Training Classes for females attached to several schools. Total expenditure, Rs.66,146.

Male teachers, 6,296, of whom 3,435 are trained, and 4,365 certificated. Female teachers, 568,—trained 54, certificated 120. A decrease of 47 in the number of unqualified teachers of both sexes during the year. 360 male-students and 37 female in the Training Institutions. "The curriculum has been extended and enlarged so as to include a clerical and commercial section, comprising Shorthand, Commercial Geography, Book-keeping, Precis-writing and Type-writing. The commencement in the Central Model School of Kindergarten and Drawing on an organized plan and the appointment of 7 Drawing Masters in the Central Training College and the Normal Schools, are satisfactory features in the year's work. Instruction in Practical Agriculture and Mensuration is now given in all Normal Schools."

Special Education.

The Mayo School of Art showed at the Delhi Durbar Art Exhibition a balcony and a room, the former including some very fine carved panels. The walls and ceiling were covered with carvings representative of the differents styles of the Province. The whole was much admired and sold for Rs.10,000, the carving of the balcony receiving a gold medal. Ten Magic Lantern Lectures were delivered during the cold weather. In the Engineering Class, as in the Railway Technical School, the want of suitable instruments and appliances is greatly felt.

Female Education.

Some progress is recorded; the number of trained teachers is sadly deficient, the establishment of a training school, the revision of the curriculum, and the preparation of new reading books are expected to impart an impetus. A First Arts Class for girls at the Forman Christian College, Lahore, is regarded as an interesting experiment. "Needle-work is very good in all Christian Schools. It is almost altogether neglected in isolated Primary Schools for want of teachers. The Boarding Schools, which are all Christian, are the only ones which have an opportunity of teaching Domestic Economy. It is much to be regretted that more attention is not given to practical training in the High School, but parents oppose it, for they consider that it is the business of a school to pass girls through examinations, and that household work can be learnt at home."

"On the whole each religious body is in its own way showing distinct signs of progress. The Christians more especially in industrial education, the Mahommedans in education of girls of a good class in purdah schools, and the Hindus in attendance at Primary Schools."

Education of Europeans.

17 Public Schools for 1,101 boys, 20 for 1,437 girls; 4 Private Schools for 93 pupils. Expenditure, Rs.1,99,961. The number of pupils has risen. Latin, Object Lessons, and Drawing are better taught than formerly. Urdu is still an unpopular subject.

Muhammadan Education.

An increase of 100 children is recorded. The percentage of Muhammadans attending school is 11·63 against 15·02 of Hindus and 15·67 of Sikhs. Two Muhammadans passed the M. A., 34 the B. A.

Discipline and Moral Training.

All the Inspectors report a few attempts at cheating in examinations. Want of harmony among the teachers is reported in some Secondary Schools. In Rawalpindi Circle cleanliness and punctuality are wanting. Four serious cases of breach of discipline occurred in the Government College, Lahore, and one at Amritsar; the offenders were expelled. Fourteen Municipal Committees in the Delhi Circle are said to have neglected the wants of their schools, and the Sonepat Committee is reported to have encouraged the pupils of the school to revolt against their teachers. Shakespearian Societies, Debating Clubs, Students' Club, and Old Students Associations do good work. Gymnastic apparatus is incomplete in many schools, and adequate play-grounds badly needed. College students are encouraged to play outdoor games. In the Forman Christian College students are obliged to take some form of regular exercise, and though they play one game from choice must put in a definite number of attendances each month at one or other of the available forms of exercise.

Boarding-houses.

291 boarding-houses—269 for boys, 22 for girls. A new boarding-house capable of accommodating 160 students, was added to the Forman Christian College, Lahore. Much new accommodation is being provided. There are now very few secondary schools that have no boarding-house attached.

Text-book Committee.

New text-books of Arithmetic in the Vernacular for Primary Schools, of Kindergarten and of songs appropriate for class purposes and suited to native airs are being arranged. The course of Physical Training is being revised in order to expand and improve the sections on Native Games and Exercises, with special reference to the scheme adopted in the Central Provinces. A section on Manures is being added to Agricultural Readers. A revision of the work in Geometry is being made in accordance with the recommendations of the Mathematical Association. In order to increase the usefulness of the Reference Library and to afford teachers and Inspecting Officers away from head-quarters the opportunity to keep up their reading, books were sent out to Inspectors to be circulated to the staffs of schools at their circle head-quarters.

THE NEWS OF THE MONTH.

BENGAL.

MR. C. RUSSELL, Officiating Assistant Director of Public Instruction, Bengal, is appointed to have charge of the current duties of the Director of Public Instruction, Bengal, in addition to his own, during the absence, on special duty, of Mr. A. Pedler, C.I.E.

Mr. L. Tipping is appointed to act as a Professor in the Presidency College, with effect from the date on which he may join his appointment.

The following is the result of the election of five Fellows by the graduates of the Calcutta University: Mr. Surendranath Banerjee, Mr. Ramendra Sandar Trivedi, Dr. Nil Ratan Sircar, Mr. A. Chaudhuri, and Mr. Mohendra Nath Roy.

In connection with the operation of the Universities Act in territorial areas, it is now notified that any college situated elsewhere than in Bengal, Burma, or Assam affiliated to the University of Calcutta before the passing of the Act may continue to exercise the rights conferred upon it by such affiliation until the 31st December 1906, and students from any of such colleges may be examined by the University up to that date, and degrees may be conferred upon them.

The Committee of Directors of Public Instruction appointed to report upon the financial condition of the hill schools for European children in Bengal and Northern India again met at Simla under the presidency of Mr. H. W. Orange, Director-General of Education. The Directors present were Mr. Pedler from Bengal, Mr. Lewis from the United Provinces, and Mr. Bell from the Punjab. The report was to be presented to the Government of India early in October.

On September 17th Sir Andrew Fraser, the Lieutenant-Governor, addressed a large gathering of Indian noblemen, landed gentry and professional and business men at Belvedere on the subject of a proposal to establish a model Government college and secondary school at Ranchi. Sir Andrew said that the proposal was made on the lines laid down in the University Commission's report. It in no way implied that Government had determined to remove the Presidency College from Calcutta. There were reasons for such a removal, but the time was inopportune and the matter still undecided. The institution he proposed was intended to meet the needs of three classes. The zamindars spent much of their time on their estates and desired to have their sons educated at an institution in the interior where they would be trained as gentlemen. Sir Andrew was not in favour of a school exclusively for zamindars or for any other class. In England the sons of men of all ranks and professions were educated together. What was required was to train children to live at school, as they would have to live in after-life, with boys of different castes, religions, and races, to bring them in contact with teachers who were educated gentlemen and with boys who were being educated to be gentlemen. The second class was that of Mahomedan gentlemen who were reluctant to send their children outside Bengal to Aligarh. The third class was that of successful professional and business men whose work was in the interior and who were unwilling to expose their children to the temptations of life in Calcutta. For these three classes he would provide a model secondary school and a college in a good climate, with fitting buildings and play-grounds, and a staff of several European and several Indian professors. The students would reside in various hostels, each presided over by a professor. Provision would be made in the hostel for religious instruction. The hostel was to provide home-life, the college to provide secular education. There would be a spirit of generous rivalry between the hostels in study and in athletics. These hostels not being Government institutions must be provided by private subscriptions. Government might help with grants. Sir Andrew with some assistance could provide the college buildings; the maintenance of the college must be provided by the fees for tuition and the usual Government grants. In these circumstances the education given by the college could not be a cheap one.

Sir Andrew's proposal has not met with much support from the native Bengal papers. The chief arguments brought against it are that it is, in spite of the Governor's denial, a preliminary to the abolition of the Presidency College; secondly, that the poor will be excluded from it by the cost of its education; thirdly, that it involves a diversion of public funds to a special class which is able to provide for itself. The *Statesman* recognises the need of such a residential college, but it is by no means convinced that Government is justified in such an expenditure for such a section of the community.

A new set of rules has been drawn up by the Chief Commissioner of Assam to provide for better management of Middle English and Vernacular Schools. The rules which Mr. Fuller has drawn up, which must be conformed to before Government aid is granted, provide for the management of the schools by local committees, the proper payment and qualification of teachers, and the general control of all schools by the Director of Education. Strict supervision and effective control by the authorities should do away with much of the laxity that has prevailed in the past. Education in Assam is not in a very forward state, and it will be interesting to see if the Chief Commissioner's scheme of a dual control will prove effective. The reforms now introduced should certainly do much to stimulate the middle school system of the province.

A meeting of the Central Council of the Association for the Advancement of Scientific and Industrial Education of Indians was held at the Calcutta Town Hall on September 3rd. Babu Norendro Nath Sen presided. The President said the meeting was convened to adopt the articles of constitution framed by the Provisional Committee, to form a Central Council of the Association in Calcutta as required under these articles, and an Executive Committee of the Central Council. The Association was founded on the 22nd March last, and during the past five months it had made progress exceeding the most sanguine expectations. The extent of the progress would be apparent from the fact that they received promises of nineteen scholarships, ten for Rs.100, and nine for Rs.50 each, aggregating Rs.1,450 per month. Their object was not only to send a certain number of young men annually to foreign countries for scientific and industrial education, but to give them a fair start in life on their return to this country. The resources to carry out the latter part of the scheme must be found among the mass of their people, especially of the middle class. The President then announced that the Nawab Begum of Murshidabad had given a donation of Rs.1,000.

The sixty-ninth commemoration of Founder's Day was celebrated with the usual *eclat* at La Martiniere on September 14th, the Hon. Mr. C. G. H. Allen, Officiating Chairman, Calcutta Municipality, occupying the chair. The proceedings commenced at noon with the customary service in the Chapel, the preacher being the Rev. Canon Luckman, Senior Cathedral Chaplain, who gave a forcible and eloquent sermon. The distribution of various medals, certificates and prizes followed. A number of Cambridge University Local Examination certificates were given away. The "Alec Wilson" medal for the best shot in the school Cadet Company fell to Sergeant Anderson. The "Essay" prize was awarded to Bell. A silver medal for good conduct for girls was taken by Miss Ruby Bollard, a similar medal for boys falling to S. A. Smith. In his speech the Chairman suggested the Survey and Agricultural Departments, in which General Martin, their founder, had been in some sort a pioneer, as furnishing appropriate and interesting careers to young men.

BOMBAY.

The Chancellor of the University of Bombay has been pleased to nominate the following gentlemen as Ordinary Fellows of the University of Bombay under Section 12 (*b*) and Section 6, Sub-section 1 (*a*), of the Indian Universities Act, No. VIII. of 1904:—The Rev. D. Mackichan, M.A., D.D., LL.D.; the Hon'ble Dr. Ramkrishna Gopal Bhandarkar, M.A., Ph. D., C.I.E., Hon. M.R.A.S.; the Hon'ble Sir Pherozeshah Mervanji Mehta, M.A., K.C.I.E.; the Hon'ble Mr. Justice Badruddin Tyabji; Khan Bahadur Muncherji Kavasji Murzban, M. Inst. C.E., F.R.I.B A., C.I.E ; Shamrao Vithal; F. G. Selby, M.A. (Oxon.); Fardunji Muncherji Dastur, M.A.; Kavasji Dadabhai Naegamvala, M.A., F.R.A.S.; Michael Macmillan, B.A. (Oxon.); the Rev. F. Dreckmann, S.J.; Temulji Bhikaji Nariman, L.M.; Rao Bahadur Ganasham Nilkanth Nadkarni, B.A., LL.B.; the Hon'ble Mr. Justice H. Batty, M.A. (Cantab.), I.C.S.; Mirza Abbas Ali Baig, B.A., C.S.; Sir Bhalchandra Krishna Bhattavadekar, Kt., L.M.; the Hon'ble Mr. Justice Narayen Ganesh Chandavarkar, B.A., LL.B.; Behramji M. Malabari; Shams-ul-Ulama Jivanji Jamsetji Modi. B.A.; Kavasji Jamshedji Sanjana, M.A.; the Rev. R. Scott, M.A.; Fardunji Kuverji Tarapurvala, B.A., L.C.E., C.I.E.; Rao Bahadur Vesudev Jagganath Kirtikar; Rastamji Dhanjibhai Sethna, B.A., LL.B.; the Hon'ble Mr. Daji Abaji Khare, B.A., LL.B.; Dominick A. deMonte, L.M.& S., M.D., L.R.C.P., M.R.C.S., L.M.F.S.A., F.R.G.S., F.R.A.S.; Major L. F. Childe, M.B., B.A., I.M.S.; The Rev. R. MacOmish, M.A., B.D.; Major C. H. L. Meyer, M.D., B.S., M.R.C.S.; I.M.S.; Ibrahim Muhammad Sayani, B.A.; Accacio Gabriel Viegas, L.M. & S.; Major T. D. C. Barry, M.R.C.S., F.R.S.E., F.I.C., I.M.S.; Shridhar Ramkrishna Bhandarkar, M.A.; C. W Chitty, B.A. (Cantab.); Lieut.-Colonel M. A. T. Collie, M.B., C M., I.M.S.; Lieut.-Colonel H. P. Dimmock, M.D., L.R.C.P., M.R.C.S., I.M.S.; Nanabhai Ardaser Moos, B.Sc., L.C.E., F.R.S.E.; F W. Bain. M.A. (Oxon.); Tribhovandas Kalliandas Gajjar, M A., B.Sc., F.C.S.; Ganpat Sadashiv Rao, M.A., LL.B.; W. H. Sharp. M.A. (Oxon.); A. W. Thomson, D.Sc., C.E.; H. M. Phipson; L. J. Robertson; the Hon'ble Mr. Gopal Krishna Gokhale, B.A., C.I.E.; Major H. Herbert, F.R.C.S., I.M.S.; James MacDonald; Nusserwanji Fakirji Surveyor, M.A., B.Sc., M.D.; J. G. Covernton, M.A. (Oxon.); J. C. G. Bowen; Casim Sumar Thariani, M.A.; Sir Jamsetjee Jeejeebhoy, Bart.; James Nelson Fraser, M.A. (Oxon.); Philip Glynn Messent, M.Inst.C.E ; Mahadeo Bhaskar Chaubul, B.A , LL.B.; Miss A. E. Edge; Sorab Kharshedji Nariman, M.D., B.Sc., D.Ph., M.R.C.S.; the Rev W. Shapter, S.J.; the Hon'ble His Highness Aga Sir Sultan Muhammad Shah, Aga Khan, G.C.I.E.; the Hon'ble Mr. Ibrahim Rahimtoola; the Hon'ble Mr. Justice S. L Batchelor, B.A. (Oxon.), I C.S.; A. B. Clarke, B.A. (Cantab.); Raghunath Purshotam Paranjpye, B.Sc. (Bom.), M.A. (Cantab.); Major W. V. Scudamore, R.E.; Lieut.-Colonel W. H. Burke, M.B., I.M.S.; G. O. W. Dunn, M.Inst.C.E.; Major A. Street, M.B., F.R.C.S., I.M.S.; J. A. Turner, M.B.; M. R. Jardine, B A. (Oxon.); S. A. Powell, B.A., M.B., M.Ch.; Mokshagundam Visvesvaraya, B.A., L.C.E., A.M.Inst.C.E ; Dinshaw Fardunji Mulla, M.A., LL.B.; Vaijanath Kashinath Rajvade, M.A.; Govind Chimnaji Bhate, M.A.; Stephen Meredyth Edwardes, I.C.S.; A. L. Covernton, M.A. (Oxon.); A. C. L. Wilkinson. M. A. (Cantab.); H. N. Allen, B.Sc., Ph.D.; Frederick Burton Pendarves Lory, M.A. (Oxon.); and Ganesh Janardan Agashe, B.A.

The following gentlemen were declared to be elected by the Graduates of the University of Bombay under the new Universities Act:—Messrs N. M. Samarth; G. B. Kher; C. D. Saraiya; S. S. Setlur; and L. A. Shaw.

A meeting of the Fellows of the Bombay University appointed under the new Act was held on October 7th in the University Convocation Hall, the Rev. Dr. Mackichan, Vice-Chancellor, presiding, for the purpose of electing the ten remaining Fellows, and thereby complete the full number of the Senate to one hundred Fellows. Of these ten four were to be elected out of the class of educationists. and then the remaining six. The following four candidates were declared duly elected:—Professor Adarji Masani, 43 votes; Professor Tulsibhai J. Desai, 29 votes; Professor Hutchinson, 28 votes; and Professor Kanga, 25 votes. In the second ballot the following six gentlemen were declared duly elected:—Dr. R. Row, 38 votes; Dr. B. E. Ghaswala, 37 votes; Mr. Jafar Rahimtulla, 35 votes; the Hon. Mr. H. S. Dikshit, 32 votes; Mr. C. M. Cursetji, 25 votes; and Mr. Subramani Aiyar 24 votes.

The past and present students of Wilson College presented an address in a silver casket to Professor Robertson (late acting Editor of *Indian Education*) on his going home on long leave.

The Poona High Schools' Athletic Association held their sports on August 31st. The meeting was a very successful one, Lady Lamington giving away the prizes at the conclusion. The Association was formed in 1900 under the presidency of the Director of Public Instruction. Lord Northcote gave it a great stimulus by becoming the first patron and life-member. In the first three years the cricket competition was won by the Bishop's High School, and this year the New English School are the winners.

The trustees of the Ranade Memorial Fund propose to build and endow in Poona an Economic Institute, for which a capital sum of Rs.80,000 has been raised. They also propose to send specially-qualified scholars to the great industrial centres abroad to study manufactures, for the pursuit of which special facilities exist in India, and to enable these scholars on their return to India to demonstrate the value of their investigations. The proposal is an admirable one, and Government has expressed its sympathy with it, though it has pointed out that the trustees must not place too much reliance on the possibility of obtaining assistance from District Boards and Municipalities.

In the course of his tour, Lord Lamington visited Kolhapur and inspected the Jaysingrao Ghetge Technical School, the Rajaram College, the Farm of the Agricultural School, and the Ahilyabai Girls' School. The first was founded in 1887 and has now thirty-three students on the roll. The Governor commented on the remarkably up-to-date nature of the appliances and instruction. Colonel Ferris, the Political Agent, has recently become a "pupil" of the institution, and exhibited a table made by himself. At the College the Governor praised the recitations and the interest in athletics, and commended the efforts on behalf of educating the backward classes. He concluded his speech by reminding his hearers that the College was intended not only for Kolhapur but also for the Feudatory States grouped around, and appealed to the Feudatory Chiefs to lend a heartier support to its work than they had done, suggesting that they might be given a voice in the affairs of the College by means of a consultative committee.

At Ahmednagar the Governor received an address from the Ahmednagar Education Society asking that Government would take back the management of the High School, since owing to bad times the Society found itself unable to maintain this along with the City School, Sanskrit School, and Urdoo School. The Governor suggested that the Society should raise the fees of the High School, and the Chairman promised to consider the matter.

BURMAH.

The results of the Patamabyan examination of 1904 are now publishshed. U. Kalyanabiwuntha, of Rangoon, has qualified as the Patamagyaw for the year. There were eight successful candidates in the Patamagyi Standard. One laywoman, Me Dwe, of Payaban village, Shwebo District, also passed this examination. In the Patamalat Standard ten candidates passed. Seventeen candidates were successful in the Patamangè Standard.

At a recent meeting of the Committee of the Educational Syndicate, alleged malpractices at the Subordinate Revenue and Land Records Examination, held in April 1904, were considered. The names of two candidates were struck off the rolls of candidates for that examination, one of whom was debarred for two years from appearing at any examination conducted by the Syndicate.

Two representatives from the Mahommedan College at Aligarh have arrived in Rangoon to collect funds for the College. A public meeting will be held to assist them.

On October 2nd the Bishop distributed the prizes at the Diocesan Girls' School, Rangoon. The chief feature of the Annual Report was the successes of Miss Kate Wall, who won the Governor's Gold Medal and a scholarship at the Rangoon College. The financial condition of the School was sound, and it was hoped shortly to add to it a Drill Hall at the cost of Rs.6,000.

The scheme for the grant of archæological scholarships in Burma, to which a reference is made in the Report, cannot be carried out until provision is made for instruction in the Rangoon College in the A course, which includes Pali, of the B. A. Examination. The Lieutenant-Governor considers that Mr. Taw Sein Ko, the Government Archæologist, has done useful work during the year.

CEYLON.

A telegram from London announces that Mr. Lyttleton, Secretary of State for the Colonies, has approved Mr. Burrows' proposals regarding Estate Schools in Ceylon, adopting, however, Mr. Harward's scheme for special schools in certain districts. What Mr. Harward's scheme may be is not clear, for Mr. Harward has not really drawn up any scheme. It is surmised that the reference is to a passage in the Director's Administration Report for 1903, where, quoting Sir Denzil Ibbetson's opinion that a cultivator's son requires to be able to read and write sufficiently and to be taught arithmetic after native methods, Mr. Harward adds:— "The real solution of the question seems to lie in the establishment of a special class of schools for the estate cooly, with a syllabus framed to meet the real wants of his children." This suggestion, however, Mr. Harward has not elaborated. The Secretary of State's despatch is now awaited with some impatience.

Ananda College, which claims the English University Scholar of the year, had its Prize-giving with Colonel Olcott of the Theosophical Society as chairman. The principal speech was that of the Solicitor-General, Mr. P. Ramanathan, who made an impassioned appeal to the Sinhalese against denationalisation. He inveighed bitterly against the materialistic tendencies of the times, and against the adoption by the native Sinhalese of certain forms of Western civilisation. The Sinhalese language, for example, was neglected in the homes of the people. The Westerns had taught the Sinhalese much ; but he protested against the neglect of the native language and the native philosophy.

Schools "recognized" by the Calcutta University have received notice from the Registrar that the Matriculation Examination of 1905 will be the last to be held in Ceylon. This is in accordance with the provisions of the Indian Universities Act, which transfers to Madras the schools in Ceylon now affiliated to Calcutta. It is not likely, however, that many schools (if any) will accept the privilege. If the negotiations now in progress are successful, the London University will be the ruling factor in our education.

Mr. K. C. Browning, Senior Scholar and late Demonstrator in Chemistry of St. John's, Cambridge, has arrived in Ceylon, where he will perform the duties of Public Analyst and Lecturer in the Medical and Royal Colleges, and will also take charge of the Chemical Laboratory in the Technical College.

Mr. C. Hartley, of the Royal College, was warmly welcomed by his pupils on his return from furlough. An address was presented to him by Mr. A. E. Keuneman, the senior student of the College.

An "old boy" of St. Thomas' College, Mr. A. C. Tampoe, has passed the Indian Civil Service Examination. This is the first instance of Ceylonese success at the examination, and a holiday was given at St. Thomas' in honour of the event.

The Secretary of State has sanctioned the construction of an Observatory in Colombo at a cost of Rs.25,000.

A Training College is about to be started for Sinhalese female teachers at Corona, Kollupitiya, under the principalship of Miss Helen Phillips, of the C. M. S. It will be registered as a grant in-aid school, and will be conducted on the lines of the Government Training College for male teachers. The course is a two years' one.

MADRAS.

The territorial limits of the Madras University under the new Act are Madras, Coorg, Hyderabad, Mysore and Ceylon, the last being transferred from the Calcutta to the Madras University.

On September 24th the graduates of the University elected the following as Fellows:—Messrs. Joseph Satya Nadar, K. B. Ramanatha Iyer, T. V. Seshagiri Aiyar, V. Krishnaswami Aiyar, and V. C. Seshachariyar.

On September 17th the present elected Fellows of the Senate met to elect five Fellows. Two members of the Syndicate were present, as required by the Act, and the Registrar, Mr. Peterson. Mr. B. Hanumantha Rao was elected to take the chair. After the votes had been collected, the Registrar took the ballot-box to his own room amid a protest from the

Fellows present. The Registrar, with the two members of the Syndicate, tabulated the results and then returned to the meeting, the Registrar announcing that he would telegraph the results to the Chancellor and refusing to announce the results till they had been approved by the Chancellor. A heated discussion took place, in the course of which the Registrar justified his action by a telegram which he had received from the Chancellor.—" Please telegraph names of elected Fellows for Chancellor's approval. His Excellency will send you further instructions." Finally, a compromise was arrived at. The Press representatives withdrew, the Chairman was allowed to scrutinise the results and announce them confidentially to the meeting. The names of those elected were Messrs. A. Periajaswamy Moodelliar, M. R. Ramakrishna Aiyar, P. S. Ganapathi Aiyar, A. Sitarama Aiyar, and the Hon. Mr. V. C. Derikachariar.

A *Gazette* Extraordinary contains the names of fifty ordinary Fellows of the Madras University nominated by the Chancellor under the new Act. These, for the most part, are gentlemen connected directly or indirectly with education in the Presidency; thirty are Europeans, and twenty are Indians. Thus, with the elections previously held, the proportion of Indians and Europeans just now is the same. The election of ten Fellows, together with the *ex-officio* Fellows, will make the Senate complete. It might, under the Act, have consisted of 100 ordinary Fellows and *ex-officio* Fellows, but the Chancellor has nominated only fifty, the minimum number allowed under the Act, and there are five *ex-officio* Fellows by virtue of their office.

The following is a new circular issued by Mr. Madhava Row, Dewan of Travancore, respecting religious instruction in Aided Schools:—" Government do not think it desirable that any portion of the ordinary school-hours should be devoted to religious instruction, and rule, therefore, that in all Aided Schools all the prescribed five hours should be devoted to secular teaching only, and that if Managers want to impart religious instruction to the pupils of their faith, it should be done either before or after the school hours, *viz.*, before 10 a.m, or after 4 p.m." The Missionary Societies are much alarmed by this, holding that it is a direct interference, if not prohibition, of their schools' work. " It plainly prohibits the teaching of the Bible to the non-Christian pupils for which these schools exist, and the money is raised in England for the support and maintenance of the institutions." This does not seem to us quite true, for the Missionaries are still able to impart religious instruction before or after school-hours. Moreover, the schools are obviously not entirely supported from home, or they would not need a grant-in-aid. If they were entirely home-supported, they could dispense with the grant and teach the Bible as much as they liked. But if Government made an exception in their favour from its policy of neutrality in religion, other communities would soon demand a similar concession.

A conference of managers and heads of European schools has been held in Madras. The meeting resolved, at the suggestion of the Earl of Meath, that an Empire Day should be fixed with a view to encouraging children to appreciate their membership of a great Empire. November 9th was selected as the anniversary of the King's birthday. More important was the discussion of the means to improve the professional qualifications of teachers in European schools. It was proposed that a course of lectures for untrained teachers in Madras should be instituted, that the Director should have greater powers in dealing with teachers' qualifications, and that Government should be requested to give heads of schools an opportunity to express an opinion on the Educational Resolution before it was set working.

PUNJAB.

It is reported from Home that the Rev. Samuel Slater, D.D., who was for many years prominently identified with the promotion of educational facilities for domiciled Europeans and Eurasians in the Punjab, died at Ealing at the age of 82. After some years of educational work in Calcutta, he was appointed to take charge of the Church School, which was then being founded at Simla for country-born white and Christian half-castes. Mr. Slater continued to be its head-master for twenty-two years, and before his retirement received the degree of Doctor of Divinity from Archbishop Benson.

The Municipality of Delhi has decided to open a school for the education of Muhammadan girls. The names of twenty-one pupils have already been registered.

In furtherance of the policy advocated by the Education Conference, held under the orders of the Government of India at Simla three years ago, the Lieutenant-Governor of the Punjab has decided that one secondary school in each district of the province should be maintained as a State institution. He has accordingly directed that certain schools named in a list published in the *Punjab Gazette* shall be taken over by the Education Department from the 1st November. As, however, it is essential that the schools should be raised to a high standard of efficiency, with a view to serving as model schools in the district, the future scale of expenditure is to be raised. Sir Charles Rivaz is, however, not prepared to relieve the Local Bodies concerned of the expenditure on these schools hitherto met from their own funds, which would be saved to them by the new order, and he has accordingly directed that the Local Bodies shall contribute to the Provincial Revenues a fair quota towards the upkeep of the State-maintained institutions in question.

Mr. W. Bell, C.I.E., has returned from Europe and resumed charge of the duties of Director of Public Instruction, relieving Mr. W. C. Renouf. An announcement in the *Gazette of India* states that Mr. Bell is appointed Inspector of the Chiefs' Colleges in India in addition to his own duties.

A question of some importance has cropped up in connection with Anglo-Vernacular schools for natives maintained in the Punjab by the Christian missionary bodies at Home. The teachers in most of these schools are non-Christians, and the more ardent among the missionaries consider this is a great defect in their educational work. The head of the Cambridge Mission at Delhi admits that educational work, with its poor pay and little or no prospects, has no attractions for Native Christian graduates of the Mission colleges. Mr. Allnutt proposes that the Home societies should subsidise Mission schools more liberally than they do now, in order to enable Christian masters to be employed in large numbers. For a long time to come, he thinks, Christians will require to be more highly paid than non-Christians, and the funds at the disposal of the Mission in India are not sufficient to meet the extra expenditure.

Mr. J. G. Gilbertson, M.A., and Miss Sime have been appointed to the Provincial Educational Service. The former has entered upon his duties as Registrar of the Education Department, and the latter will be Junior Inspectress of Schools. Mr. F. A Leslie-Jones, M A., has joined the Indian Educational Service as Principal of the Lahore Chiefs' College and Mr. J. C. Godley, B.A., will proceed to Rawalpindi as Inspector of Schools.

In a notification ordering the introduction of a " Manual of Kindergarten Methods, " in Punjab Schools, the Director of Public Instruction points out that the action-songs contained therein are to serve as specimens only, and that they should not be learnt by rote. Songs peculiar to the industries of different localities, or similar songs composed especially to suit an exercise, should be encouraged. The language of some of the songs in the vernacular edition of the book is too difficult for the Class of pupils for whom they are intended, and should be replaced by simpler songs. It is further directed that songs as an accompaniment to Kindergarten occupations be confined to the Lower Primary Department.

UNITED PROVINCES.

The results of the Allahabad University Examinations, held in July, show that 18 candidates passed in the M. A. Examination ; 46 obtained the LL. B. Degree, and over 200 candidates were successful in the B. A. Examination. The majority of the successful candidates were from the Muir Central College, Allahabad, and the Aligarh College.

The Chancellor of the Allahabad University has nominated forty-five Fellows.

Mr. T. C. Lewis, Director of Public Instruction, is placed on special duty, with effect from the date on which he relinquishes charge of his duties.

Mr. C. F. de la Fosse, Assistant Director of Public Instruction, is to hold charge of the current duties of the office of Director of Public Instruction in addition to his own duties, during the absence, on deputation, of Mr. T. C. Lewis.

Mr. P. S. Burrel, M.A., who has been appointed by His Majesty's Secretary of State for India to the Indian Educational Service, is to be Headmaster, Queen's Collegiate School, Benares.

The Central Standing Committee of the Mahomedan Anglo-Oriental Educational Conference, Aligarh, have accepted the invitation from a representative committee of Lucknow to hold the next sitting of the Conference at Lucknow during the last week of December. Raja Nashad Ali Khan, talukdar, has been elected Honorary Secretary of the local Committee.

Professor Jennings has done good service by founding the M. C. College Historical Association. On the 26th instant the staff and the students of the Muir College met in the Vizianagram Hall to give a constitution to the society and to clearly mention the aims and objects. The Principal dwelt on the importance of the study of history, and added that the history of India was capable of much improvement. The object of the society would be to encourage the knowledge of

Indian history. History of chemistry, history of physics and history of economy and of literature were to be included in the definition of the word. In the beginning the members will receive extra lectures from the professors, who will deal with definite periods and serious topics. But later on, as students and members prepared papers on the subjects of their own choice, they would read them in the college. The society would enlist the past and present students of the college. Also those who took interest in the Society's work would be welcomed. The Principal was elected the President of the Society, Mr. Abhaya Charan Mukerjee, Secretary, and Mr. R. K. Sorabji its Treasurer. All the professors were to be the vice-presidents, and five more elected members of the Managing Committee. The election would take place every year. Before long the Committee, consisting of professors, secretary and the elected members, would prepare rules for the constitution.

GENERAL.

About the middle of last year a communication was received by the Government from the Board of Education, London, regarding the recognition of Secondary Schools in India by that Board for the purpose of registration of teachers in England. The Board has laid down certain conditions, under which alone it is prepared to recognise the schools :—

(1) In forwarding an application for recognition from a school the Director of Public Instruction should state whether the information furnished by that school in such application may be accepted as correct, and should submit a copy of the latest official report that has been made on the school.

(2) Recognition accorded for the purposes of Sections 3 (3) and 4 of the regulations for the formation of a register of teachers, communicated with G. O. No. 456, Educational, dated 19th September 1903, will always be limited to three years from the date of such recognition and will be liable to withdrawal at any time at the discretion of the Board of Education, London. In the event, therefore, of any school being recognised, it should be informed of these facts when the announcement of recognition is conveyed to it.

(3) If after a school is recognised any alteration takes place in its circumstances of such a nature as might render it ineligible for continuance of recognition, the fact should at once be reported to Government.

GEOGRAPHICAL NOTES.

BY

W. H. ARDEN WOOD, M.A., F.R.G.S.

A PAPER recently read before the Asiatic Society of Bengal by Mr. C. Little, late Meteorological Reporter to the Government of Bengal, seems to show that our knowledge of the dangerous cyclonic storms, known in Indian seas as cyclones, is by no means so complete as could be wished. Many years ago Sir John Eliot, in his Handbook of Cyclonic

Storms, gave rules to enable the mariner to avoid the inner storm area of dangerous winds. Mr. Little's paper shows that these rules are only of service when the cyclone behaves in a normal manner, and take no account of the possibility of the storm recurving, which, as a matter of fact, the more dangerous storms usually do. Mr. Little gives the experiences of two steamers, one proceeding from Calcutta to Rangoon and the other from Rangoon to Calcutta, both of which became involved in the dangerous inner area of the storm of November 14th, 1903. This storm, which would normally have crossed the coast between Gopalpur and False Point, recurved across the Bay and eventually struck the coast of Burma near Akyab. The consequence was that the observance of Sir John Eliot's rules, instead of enabling these steamers to avoid the storm centre, tended to take them directly towards it. Unfortunately, as Mr. Little points out, "the peculiarity called recurving, present in all severe cyclones, has never been investigated or explained," and "until more is known regarding that part of the cyclonic phenomenon rules may enable seamen to evade imaginary cyclones where no danger exists, but will be of little avail in dangerous storms." This being so, in view of the liability of the Indian seas to cyclones of the most dangerous character, the sooner the serious study of the phenomenon of recurvature of cyclones is undertaken the better. In Mr. Little's opinion the study of the conditions prevailing in the upper atmospheric strata is most likely to throw light upon this question. So far nothing serious has been done in India in this direction, although American meteorologists are fully alive to the importance of increasing the knowledge of the meteorology of the higher regions of the atmosphere, and have entered upon its systematic investigation.

* * * *

The paper by Mr. R. D. Oldham on "The Glaciation and History of the Sind Valley" in Kashmir, which appears in a recent issue of the Records of the Geological Survey of India, is an instructive study in practical geography, covering a portion of one of the most fascinating fields for its pursuit. The photographs of the upper part of the Sind Valley which accompany the paper are extremely beautiful and illustrate well the wilder type of scenery to be found in the higher valleys. Kashmir undoubtedly offers exceptional facilities for the study of a wide range of geographical phenomena within a small compass. The vale, which is almost certainly an old lake-floor, is surrounded by snow-clad mountains, and the River Lidar, one of the principal head streams of the Jhelum, has its origin in an easily accessible glacier. This river, like the others which unite to form the Jhelum at the south-eastern end of the vale, has a torrential course down its mountain valley, and when it enters the plain to join the Jhelum, it breaks up into deltaic distributaries. The beds of these mountain streams are much wider than the volume of water they ordinarily carry requires, and are strewn with water-worn boulders of all sizes, representing many varieties of rock gneiss, sandstone, limestone, marble, and various volcanic rocks, which have been carried down and scattered over them during floods. The Jhelum proper is a typical river of a flat-bottomed valley, its wide meanders over the old lake-floor being only restricted by the characteristic mounds of detritus, called *karewas*, which project into the vale, and, near Srinagar, by the trap mountains which rise east and south of the Dal Lake. It enters the Wular Lake through marshes probably formed by the river itself in its efforts to fill up the lake, which formerly extended considerably further south. The actual shores of the Wular are for the most part low, though several valleys open on to it from the high mountains to the north and east; but on the north-west a bold, rocky headland projects into the lake, forming coves and a shingly beach on which the waves break after a storm as on the sea-shore. After emerging from the Wular the Jhelum resumes its placid course, until it leaves the vale at Baramula, and begins to rush down the hundred miles of gorge through the mountains which intervene beweeen Kashmir and the plains of the Punjab. The summer climate of the vale is essentially sub-tropical, but one can pass in a few marches from fields of rice, maize and cotton, where the characteristic trees are the cheenar (plane) and the willow, and where the vine flourishes, to mountain valleys where the walnut replaces the cheenar, and thence higher to the region of pine forest, above which the birch prevails until the tree line is reached.

* * * *

An interesting discovery of a stratum of large oyster shells was made in July while excavating for the foundations of some new buildings in Clive Street, Calcutta. The stratum was found about five feet below the present level of the street, and the structure of the shell was such as to enable the oyster to adapt itself to the conditions prevailing in a growing delta by raising itself above the mud in which it would otherwise have been buried. This discovery proves that in recent or sub-recent geological times the site of Calcutta was a muddy flat to which sea-water had access.

SCIENCE NOTES.

BY

WILLIAM JESSE, M.A., F.Z.S.

MR. DAVID HOOPER, F.C.S., of the Indian Museum, has recently published a most interesting paper on the Coca plant, from which the drug cocaine is derived. This plant, the properties of which were known to the ancient Peruvians, thrives on the Eastern slopes of the Andes, at an elevation of from five to six thousand feet, and is an extremely valuable article of commerce. The first crop can be gathered eighteen months after sowing, and the plant gives an annual yield for upwards of forty years. In 1884 the medical faculty began to realize its anæsthetic properties, particularly in regard to minor operations, and, in the following year, Calcutta and Madras surgeons were using the drug in their practice. A demand being created, experiments in coca-growing were made, and it was found that it grew well on the Nilgiris, at from one thousand to four thousand feet, in the Wynaad, in Travancore, on the Shevaroys, as well as in the Terai and Duars of Northern India, Sylhet and Assam. In 1890, on account of the expensiveness of hydrochloride of cocaine, the Secretary of State enquired whether it was not possible to manufacture the substance in this country, but, when it was found that some ten pounds would suffice to supply all the Government civil and military hospitals, the matter was dropped.

Though amongst medical men the demand for the drug was small, the injurious habit of eating cocaine began to result in an alarmingly increasing sale throughout India. When the habit originated seems a mystery, but, from time to time, writers in the *Indian Medical Gazette* have described its baneful effects. As an instance of the rapidity with which this vice spreads, it is said that only four years after cocaine made its way to Bombay, no less than Rs.50,000 worth was being sold monthly. "It is openly sold," wrote a well-known doctor a short time ago, "in all the principal *pan-supari* shops on all the prominent roads in the heart of the native city. It is sold in the form of a *putti*, or rolled leaf, for one or two annas. This is a little green square packet of leaf containing some catechu paste (*khatha*) and some slaked lime with a few pieces of betel-nut. A cocaine *putti* will contain, in addition to these ingredients, a little alkaloid according to the price paid. The *habitué* will not devour the compound at once, but first masticates a plain *pan* leaf, expectorates it, and then chews the cocaine *putti*, using a little slaked lime which he has on the palm of his hand or on the top of his finger. The addition of the lime is said to increase the effect of the cocaine on the nerves. The general effect of this dose is to produce a feeling of good-will to all mankind and to forgive your bitterest enemy, and an overpowering impulse to seek pleasure. Appetite and sleep vanish, and the sensation of weariness never overcomes one so long as the craving is satisfied with repeated supplies of the drug. Solid food is rejected and milk becomes the only palatable nutriment. But the penalty for this indulgence has to be paid in due course. In three or four months, according to the strength of his constitution, the poor victim suddenly collapses and puts the cocaine *putti* away from him for ever. One day he finds his whole throat, from gullet to collar-bone, paralysed, and his tongue heavy and insensible. Emaciation of the body has set in, and, where the skin sinks in between the ribs, it turns dark, and the lips, tongue, and teeth assume a blackish colour. His eyes are hollow, his jaw drops. He finds that his brain becomes senseless and confused, and his speech inarticulate. At last he sinks into oblivion, poisoned by his own hand with a drug which was intended to alleviate distress, but which in excess has proved his ruin." In 1900 the Bengal Government included cocaine in the definition of intoxicating drugs, and two years later its sale without a license was made punishable.

* * * *

Recently the *Illustrated Scientific News*, in some notes on the great planet Jupiter, remarked that, with its mysterious vapoury markings moving at varying rates in a number of different parallel currents, this heavenly body has always been an object of great interest. Its huge red spot, computed to be 7,000 miles across, was first noticed some twenty-four years ago. It rapidly increased in definition and depth of colouring, but later on it faded till, in 1892, it had almost disappeared. It then had a constantly increasing retardation of motion; but Mr. Denning, writing to *Nature*, states that he has recently noticed that it has now a very pronounced acceleration of motion. In 1901 its period of rotation began to decline, and this acceleration of motion has been intensified during summer of last year. About the same time there was an outbreak of "a large, irregular or multiple marking of a dusky hue" in the same latitude of the planet, having a rotation period corresponding to that of the south temperate current. The red spot has always been situated in a stream flowing with a much greater velocity than that of its own motion, which makes its presence very difficult of explanation. One of the most remarkable episodes of its career was when, in 1890, Mr. Stanley Williams noted a dark spot moving along the same parallel at a greater rate. This was watched with the greatest interest, to see what would happen when it encountered the great red spot, but it was a surprise to all observers when it was seen to evade the latter by skirting round its southern edge.

* * * *

Polonium, the first radio-active substance discovered by M. and Mdme. Curie, and so-called after Poland, the native country of the latter, is distinguished from the other radio-active bodies, thorium, uranium, actinium, and radium, by the fact that its radiation appears to consist solely of the alpha particles which are larger, slower, and less penetrating than the beta particles, as well as not so much deviated by a magnet. Moreover, polonium does not yield a "gaseous emanation." Radium emits both alpha and beta particles, and a gaseous emanation, which contains helium. Two other radio-active substances have been found in pitch-blende—namely, "radio-tellurium" and "radio-active lead"—but M. and Mdme. Curie consider radio-tellurium identical with polonium. M. Debierne has investigated the matter and come to the conclusion that there is no distinction between polonium, radio-active lead and radio-tellurium. He also observed that, while the radio-activity of polonium disappeared little by little, that of the nitrate of radio-active lead continued for several years. He, therefore, supposes that the constancy of radio-activity depends on external conditions, which it will be important to determine.

CORRESPONDENCE.

IS "T" A DENTAL OR A LINGUAL?

I.

SIR,

ALLOW me to thank you for the expression of your opinion below my correspondence headed "Orthœpic Anomaly," as requested by me in the last number of your monthly. I fail, however, to understand how the letter 't' can possibly be regarded as a palatal. Is it not a slip of the pen? The palatals in Sanskrit are five in number, while in English there are only three, 'ch' (church), 'j' and 'y' (yes).

Yours, &c.,
K. R. NANJIANI,
Head Master, Telang High School.

II.

SIR,

WITH reference to the letter of Mr. K. R. Nanjiani in the last issue of your magazine about the pronunciation, classification, and transliteration of the English 't,' I should like to give expression to my opinion on the matter, and request you to kindly publish it for further discussion in your journal.

Mr. Nanjiani thinks that the English 't' does not belong to the dentals, but to the cerebrals like the Sanskrit 'ट,' and that, therefore, the transliteration of 't' by 'त' and of 'd' by 'द' is wrong. I take the opposite view of the point in question, and would consider it a mistake to render the 't' sounds in English words by 'ट' and 'ड' when written in vernacular languages, as is frequently done in our school books. The fact that the Inspector of Schools, who, being an Englishman, should know how to pronounce his own language, criticizes, at every inspection in my school, the pronunciation of the English 't' and 'd' letters as being cerebral instead of dental, is ample proof that I do not stand alone in my opinion. The cerebrals 'ट' 'ड,' etc., not existing in European languages many Europeans find it extremely hard to learn their pronunciation. On the other hand, the English spoken by the majority of the Hindus is nearly unintelligible to a new-comer to India for their strange pronunciation of the 't's and other peculiarities. This shows that the English 't' is far from being a cerebral, and that its transliteration by 'ट' or 'ड,' as Mr. Nanjiani proposes, is not justified. It is true that it is also not quite the dental of Sanskrit or a Dravidian language, but to render the English 't' by the dentals of Sanskrit and Dravidian languages comes much nearer the point than its rendering by cerebrals.

Dr. Lepsius, as will be known, has reduced unwritten languages and foreign graphic systems to a uniform orthography in European letters, and his orthography has been universally adopted in all standard works and for all scientific treatises. Now, he represents the cerebral letters, of Sanskrit and other languages by our signs for dentals *with* a diacritical mark, *viz.* a dot under the letter, as 'ṭ', 'ḍ', 'ṇ'; the dentals in Sanskrit, however, are rendered by our signs for dentals without such marks, *i.e.*, 't', 'd', 'n', although there is a difference between the pronunciation of dentals in Indian and European languages. Lepsius chose to do so, evidently, because this difference is very slight compared with that between the European dental and the Indian cerebral, which Dr. F. Kittel, in his Grammar of the Kannaḍa language, describes as follows :—"The cerebral 'ṭ' has the sound of an English 't' that is formed by curling back the tongue, forcibly striking the under part of it against the roof of the mouth. It differs essentially from the true English 't,' for which there is no letter in Kannaḍa. Natives, however, use to represent the English 't' by ಟ(ट,)." In fact, we are careful in following the orthography of Lepsius, whenever we have to render Sanskrit or Dravidian words in English characters, but careless and inconsistent in the transliteration of English words in vernacular languages. This has caused a great confusion and made the teaching and learning of a good English pronunciation very difficult. Our schoolboys learn in their first years English words introduced into the vernaculars, such as town, top, gate, slate, etc. They read them misspelt in their vernacular readers, and mispronounce them accordingly. When they come up to higher classes, they know it no better than that the English dental is equivalent to the vernacnlar cerebral. It is then almost impossible to make them unlearn what they have thoroughly learnt in the lower classes. The most efficient remedy for it is to remove the cause of the evil, *i.e.*, to represent the English 't' and 'd' invariably by 'त' and 'द' and never by 'ट' and 'ड'. For if Lepsius is right, we ought not only to render the Sanskrit and Dravidian dentals by English dentals and the cerebrals by English dentals with the characteristic dot beneath the letter, but also conversely the English dental by the vernacular dental, and not by the cerebral, as has been unfortunately the custom hitherto.

It would be very desirable if the Text-book Committees would direct their attention to this point. If the discussicn of it in your journal would result in drawing their attention to this question, I should be very thankful to Mr. Nanjiani for having moved it first.

Yours, &c.,
I. PFLEIDERER,
Principal, B. G. M. High School,
Mangalore.

Mangalore, 9th September 1904.

[The term palatal, suggested by Mr. Robertson, is used loosely of any sound made between the tongue and any part of the hard or soft palate, and in some grammars is applied to sounds pronounced as far back in the throat as hard 'ch,' in others (*e.g.*, Morris) to 't.' 'd' and nasal 'n.' Its indefiniteness makes its use confusing. On the question of the transliteration of the English 't' and 'd' we agree with Mr. Pfleiderer. The following description of the pronunciation of the English 't' is from the Century Dictionary:—"It denotes the surd (or breathed) mute (or check) produced by a complete closure (with following breach or explosion) between the tip of the tongue and a point on the roof of the mouth either close behind or not far from the basis of the upper front teeth. Its corresponding sonant or voiced mute is 'd' and its nasal is 'n.' They are oftenest called dental or teeth-sounds, though the teeth have really no part in their production . . . A sound which our ears would at once recognise and name as a 't' sound is producible in other positions of the organs than that described above, namely, at points further back or behind the tip, and even its under surface." This sound approaches that of the Sanskrit cerebral letters, which the same authority describes as "formed by bringing the tip of the tongue backward and placing its under surface against the roof of the mouth." The English 't' varies in sound and does not correspond *exactly* to either the Sanskrit 'त' or 'ट,' but more nearly to the former, from which it differs in causing the tongue to be raised a little higher up.—EDITOR, *Indian Education.*]

REVIEWS OF BOOKS.

"LEDGER AND SWORD" OR "THE HONORABLE COMPANY OF MERCHANTS OF ENGLAND TRADING TO THE EAST INDIES." *By Beckles Willson.* (LONGMANS, GREEN & CO., LONDON AND BOMBAY. 2 *vols.* 21*s.* net.)

IN this work the author's design is to present an account of all the operations undertaken by the British East India Company. These cover a very extensive field, but with the doings of the Company's men in China and Persia, in the Gulf and the Islands of the Archipelago the ordinary person at the present time has little acquaintance. Yet in their day those personages, their schemes, their successes and their tragedies (for tragedies there were) loomed, if not larger than, at least often as large as those of their Indian contemporaries who are so much better known to fame. Hence a book of this kind should fill a distinct gap in the annals of our Empire. And not less so, because it may help us to realize what for Anglo-Indians is so hard to understand, the curious half-heartedness and indifference with which Indian affairs were treated and regarded for so long at home, until this attitude became almost a national tradition. The fact was that the Company had so many irons in the fire and was so constitutionally incapable of determining which of them would eventually prove the most paying that it could not, for many years at any rate, concentrate its energies upon the task for which by the whim of Fate it was predestined, nor even recognize the path which was to lead to its Imperial future. And if this was so with the merchant-princes themselves, can the nation, either as a whole or through its individual representatives, be blamed if it proved still less farseeing, still more indifferent to the greater issues involved and infinitely more ignorant of the facts and circumstances of the situation? Eastern names were uncouth to the ear and still more difficult to the tongue, and all alike when dwelt upon with emphasis or repetition spelt boredom or villainy. Prejudice of this stiffer sort no longer exists, but even to this day the Anglo-Indian in his own land is one of a race apart, the conduct of whose life has lain in far off regions, the limits, conditions and codes of which are still but conscientiously misappreciated by the average stay-at-home Englishman.

Any literary work, therefore, which with authority strives to place any aspects of our Eastern Empire in their true perspective should be welcomed by all Englishmen, whether at home or abroad. But it should speak with authority and the perspective must be correct. And herein lies the practical difficulty of the thing. For authority, a personal and intimate acquaintance with the East is a *sine qua non*. Without this an author is still but one of 'the men-in-the-street,' and even if the streets be those which surround the British Museum and the India Office, they are the streets of London, not of cities of the 'Gorgeous East'. Such see but as in a glass, darkly: the hints, nay the assurances, which the living impressions of the eye, and ear, and nose convey are wanting. Their effects cannot be conjured up from records, however critically perused, and without them characters are not vital flesh and blood, but puppets in a masquerade indifferently staged. Their gestures, speeches and actions, as well as the dresses and the *mise-en-scene* in such a case will constantly betray the limitations of the author. For perspective too a careful balancing is required, not only of matter, but of points of view. Granted that the Company's operations in countries other than India are a theme not unworthy of attention, yet their importance is not enhanced by neglecting or unduly compressing Indian affairs of equal or greater importance. If both are to be treated on a scale commensurate with their merits and in a single work, a book of far greater proportions than those of Mr. Willson's two volumes and of very different arrangement is required. Otherwise the result will be not merely disappointing but misleading.

These general statements indicate sufficiently the chief merits and defects of this history of 'the Company'. But there are other defects of a minor order. The style is somewhat '*banal*', and so too are the pictures. An old fashioned work like Beveridge's 'History of India' is vastly superior in the last respect. Undue compression in some places leads to confusion, if not to actual mistakes, while the detail on the other hand, in which much of the more trifling business of the Company outside of India is handled is tedious and embarassing. Perhaps the best chapter in the book is the last, in which the author appears to be on more familiar ground. It treats of the old 'India House' and the great names among the clerical staff that then served the Company. Reminiscences of Lamb, Peacock, and the two Mills connect the making of modern India in a strange though fortuitous fashion with some of the most interesting and important forces in British literature and philosophy during the 19th century.

J. G. C.

PRACTICAL ADVICE TO STUDENTS. *By H. R. James, M. A.*

(LONGMANS, GREEN & Co., BOMBAY. *As.* 4.)

THIS little book, the contents of which are reprinted from *Indian Education*, appears opportunely for Bombay students and will be of great use to all students and examinees. Part I. deals with the way to answer examination questions and lays down eight rules, all of which we can endorse from our own experiences as examiner and examinee. But we have always advised students to begin with the most difficult questions. Part II., on the right method of study, is summed up in seven golden rules, which we believe all teachers have continually to preach. Mr. James has done students a service in these papers.

SIMPLE LESSONS IN ENGLISH GRAMMAR. *By T. M. Davidson and A.M. Holden.* Parts I. and II., 2*d. each.* Part III., 3*d.*

(HOLDEN, LONDON)

A VERY good series of introductory lessons, so arranged as to keep alive interest in a dry subject and stimulate the child's faculty of observation. This is effected by the use of simple conversational language and a large number of well-chosen examples and simple exercises. Elementary parsing and analysis are included.

MACAULAY'S ESSAY ON BACON. *Edited by D. Salmon.*

(LONGMANS' BRITISH CLASSICS, LONGMANS, GREEN & CO., LONDON AND BOMBAY. 2*s.* 6*d.*)

THE length, digressions and numerous allusions of this essay justify a greater amount of annotation than usual, though we think that some of Mr. Salmon's notes could have been considerably reduced without much loss. We do not see the necessity of a page and a half of quotation from Jowett's Plato to illustrate page 103. Yet Mr. Salmon has rarely referred in his notes to Macaulay's errors or prejudices in discussing philosophy. We do not understand on what principle he omits to do this, yet explains trifling allusions. Macaulay's dicta about the Stoics and Epicureans, for instance, would certainly mislead Indian students. These criticisms once passed we are free to admit that Mr. Salmon has accomplished in the notes a laborious task accurately; and in the Introduction, a sensible and brief judgment.

POETS' CORNER. (EDWARD ARNOLD, LONDON. 1*s.*)

A BOOK of verses for children, selected from many authors, from Shakespeare down to present times, but chiefly from modern poets. A few old favourites like *The Village Blacksmith* and *John Gilpin*, some Christmas carols and two passages from the Bible are included. Most, however, are less familiar. American authors are well represented. *The Legend of Osseo* from Longfellow will charm most children. We recommend this selection heartily, especially to little girls.

TWELFTH NIGHT. *Edited by R. Brimley Johnson.*

(BLACKWOOD & SONS, LONDON AND EDINBURGH. 1*s.*)

THIS edition scarcely calls for extended comment. It is intended for schools and is admirably adapted to its purpose. The notes are clear and concise, while an excellent glossary explains all word difficulties.

DIGESTING RETURNS INTO SUMMARIES.

By John Keefe. (MURRAY, LONDON. 2*s.* 6*d.*)

A BOOK of Forms of Returns to serve as exercises and examples for candidates for Second Division Clerkships in the Home Civil Service and for students in Technical and Commercial Classes. Twenty-seven forms in all.

SPELLING AND DICTATION BOOK. *By John Keefe.*

(MURRAY, LONDON. 1*s.* 6*d.*)

COMPILED from Civil Service examination papers, and contains lists of words for memorising, dictation lessons, and exercises in which misspelt words are to be corrected. Mr. Keefe rightly cautions the student against analysing too carefully the spelling of errors lest bad habits be confirmed. But though the eye is the best guide to spelling, we think a few simple rules might have been given.

A HANDBOOK OF THE TAMIL LANGUAGE.

By the Revd. G. U. Pope. (CLARENDON PRESS, OXFORD. *7s. 6d. net.*)

WE cannot review this book, but Mr. Pope's work has attained such authority that it does not need it. The publication of the seventh edition, which the author calls the final one, is sufficient proof of its value. We can well believe that his claim is justified that, in regard to typography, it is one of the correctest books in a foreign character ever issued from the English Press.

TACITUS' AGRICOLA.

Edited by G. Norwood and A. F. Watts.

(UNIVERSITY TUTORIAL PRESS, LONDON. *2s. 6d.*)

THE Introduction has a simple and clear account of Tacitus' life, works, and style, and of the conquest of Britain, with a summary of the matter of the *Agricola*. It is kept within due limits, yet touches on the main points of interest. The notes are moderately full, simple, and to the point. They do not contain too many translations, but after explaining the matter leave the student to make his own version.

THE EMPIRE OF ATHENS. *Edited by J. M. Sing.*

(RIVINGTON, LONDON. *1s. 6d.*)

A SELECTION from Thucydides, Book I., of the parts relating to the growth of the Athenian Empire, with a brief but interesting historical introduction, full notes on elementary questions of grammar and a few grammatical rules and exercises. Very suitable for Indian students.

(1) OLD TESTAMENT BIBLE STORIES. *1s. 6d.*
(2) NEW TESTAMENT BIBLE STORIES. *1s. 6d.*

Edited with an Introduction and Notes by Richard G. Moulton, M.A. (Cantab.), Ph. D. (Penn.), Professor of Literature in English in the University of Chicago.

(MACMILLAN & CO., LIMITED, LONDON, CALCUTTA, AND BOMBAY. 1904.)

WE have read these little books with interest. The object of the compiler has been to employ the language of Scripture as far as possible, altered only by omissions, and the notes supplied are suitable not only for children in the ordinary sense of the word, but for children of a larger growth. The volumes should prove useful in schools, and we can recommend them to those who are in charge of Christian institutions and orphanages.

BOOKS RECEIVED.

A Primer of Physiology. By E. H. Starling. (*Murray. 1s.*)

English Literature. A New History and Survey. By J. M. D. Meiklejohn. (*Meiklejohn & Holden. 6s.*)

Elements of Trigonometry. By R. Lachlan and W. C. Fletcher. (*Arnold. 2s.*)

Electro-Chemistry, Part I. : General Theory. By R. A. Lehfeldt. (*Longmans, Green & Co. 5s.*)

Physiography. By T. H. Huxley. Revised by R. A. Gregory. (*Macmillan & Co. 4s. 6d.*)

Selected Poems of Gray, Burns, Cowper, Moore, and Longfellow. By H. B. Cotterill. (*Macmillan & Co. 1s.*)

Oxford University Programme of Special Studies, 1904-05. (*Clarendon Press. 6d. net.*)

Spencer's Economics. By Dr. Guglielmo Salvadori. (*Natesan & Co., Madras. As.4.*)

The Son-in-law Abroad. By P. Ramchandra Row. (*Natesan & Co., Madras. As.6.*)

Rudyard Kipling : A Criticism. By J. M. Robertson. (*Natesan & Co., Madras. As.2.*)

Maitreyi : A Vedic Story. By Pandit Sitanath Tattvabhushan. (*Natesan & Co., Madras. As.8.*)

Preparation of the Child for Science. By Mrs. M. E. Boole. (*Clarendon Press. 2s.*)

Shakespeare's Chart of Life. By Dr. William Miller. (*Natesan & Co., Madras. Rs.4.*)

The Agricultural Ledger 1904 : Nos. 10, 11, 12. (*Government Printing Office, Calcutta. Nos. 10 and 11, As.3 ; No. 12, As.2.*)

Report of a Trip in the Mysore Territory made by Students of the Dharwar [illegible]ning College, 1904.

Easy Exercises in Arithmetic. By W. S. Beard. (*Methuen & Co. 1s. 3d.*)

A School Geometry, Part VI. By H. S. Hall and F. H. Stevens. (*Macmillan & Co. 1s. 6d.*)

A First Book of French Oral Teaching. By C. V. Calvert. (*Rivingtons. 2s.*)

Commercial German, Part II. By Gustav Hein and Michel Becker. (*Murray. 4s. 6d.*)

Nature Teaching. By F. Watts and W. G Freeman. (*Murray.*)

Newne's Technological and Scientific Dictionary, Part IV. Edited by G. F. Goodchild and C. F. Tweney. (*1s. net.*)

OUR CONTEMPORARIES.

THE *Hindustan Review* of August opens with an address delivered by Professor A. C. Datta at the Government College, Jubbulpore, on "University Life." Professor Datta describes his own experiences at Cambridge and makes a comparison of university life in England and in India—much to the disadvantage of the latter. The main thesis of Professor Datta is that in the English university life and learning are blended together. A college there is an institution to enable the student to live a more intellectual and therefore more real life, and to develop his individuality by close and intimate association with other students and under the personal direction and care of a watchful tutor. An Indian college is merely a machine for passing young men through the examination mill, under whose manipulation the student develops neither individuality, capacity, nor sound knowledge. It begins and ends with *a piece of paper*, there is no real *life* in it. The career of an undergraduate at Cambridge is described from this point of view. At Matriculation there is no examination on paper but a *personal* introduction of the student to the college and university authorities. The freshman is at once invited by the senior undergraduates and even by the college authorities to parties where he becomes *personally* acquainted with his fellow-students and teachers. He dines in common with them, learning in the orderly liberty of the dinner-table "the discipline of freedom." He becomes a member of various clubs and societies, where he learns to educate himself. Above all, throughout his course he is under the direct care of a tutor who watches over not merely his studies but his whole life. His teachers are not mere "coaches," but men who treat their subjects in the broadest and most stimulating way. His examinations are not to gauge knowledge but to test power—"the capacity for doing a certain work in a certain time." A college at Cambridge therefore is a *fraternity* where life is *real*, where everything is arranged to beget individuality, to make the student realise his self and its capacity, where "you are made acquainted with the ideal, you are taught what a thing *ought to be*, and your life is modelled in semblance of that ideal; so that in your after-life you can take up a thing as it is and try to realise your ideal by improving it to what it ought to be." Such, in brief, is Professor Datta's picture of Cambridge. He seems to under-rate the possibilities of self-realisation in Indian universities and to value the tutorial system of English universities more highly than it actually deserves.

In the same number Mr. Sajjad Hyder urges that the difference of opinion between educated Mahomedans and the rest justify the former in constituting themselves a separate sect. He sums up their distinguishing opinions as follows: they believe that Islam enjoins monogamy, but does not enjoin purdah; that it allows the taking of commercial interest, but forbids slavery; that there should be more stringency in divorce, less rigidity in the laws of inheritance; that the traditions may often be disregarded and that "the Koran should always be interpreted in the light of the latest acquisition to the stock of human knowledge." He would have the members of this sect place themselves under the operation of the law which makes bigamy criminal for Christians, Brahmos, and others, and ask Government to penalise purdah and try for wrongful restraint any member who shuts his wife and daughter in the zenana. They should educate their daughters, have separate mosques lavishly furnished, wear European dress and have separate burial grounds. This separatist policy he justifies by urging that only by organisation can they hope to spread their opinions and by adducing the example of the *Moatazila* of the Abbaside period. Sir Syed Ahmed, the saint whose special disciples advanced Mahomedans try to be, though he did not form a sect, yet lived practically an outcast. Mr. Hyder's argument does not seem to us very convincing. By forming a separate sect the advanced Mahomedans would be cutting themselves off from the opportunities of influencing the less advanced members of their community and moving counter to what seems the only real hope of progress, the breaking down of caste. To destroy caste by the process of subdivision is a slow method.

In the August number of the Madras *Educational Review*, Mr. T. S. Subramania Aiyar complains that Sanskrit teaching in colleges and schools is very defective. There is, he says, a perceptible lack of system and uniformity in the teaching of the Pundits, who moreover can seldom be good disciplinarians from their ignorance of the science of teaching. Their ignorance of any foreign tongue makes it difficult to reform them, and he would substitute for them teachers who, in addition to their oriental lore, have also studied English. He holds that the text-books are unsuitable and good reading books too few. For the stilted and unedifying prose of B. A. classes he would substitute some portion of the Vedas, and thinks that if Chaucerian grammar and metre is not too difficult, the Vedic should not be too hard. In high schools he would supplement dry grammar by short and simple Sanskrit fables. The Amarakosa, the thumb-dictionary of the Sanskrit student, should be memorised. Sanskrit grammar cannot be learnt without some acquaintance with Panini's grammar. Translation of English or Vernacular passages into Sanskrit is neglected or perfunctorily executed, in spite of Roger Ascham' assertion of the advantages of translation and re-translation. Comparative philology which "widens the mental and moral horizon" is also neglected. To remove these defects he would thus re-adjust the curriculum: Lower Secondary Department—Bhandarkar's First Book of Sanskrit, Easy Stories in Sanskrit, Selections from Amaram; Upper Secondary Department—Bhandarkar's Second Book, Panchatantra, Selections from the Ramayana and Mahabharata; F. A.—A Sanskrit Play, Laghu Kaumudi B. A.—A Sanskrit Play, Vedic texts, Kuvalazananda or Chandraloka Elements of Comparative Philology.

The *School World* of September has an article by the Principal of the Isleworth Training College on the character of recent school books, the dominant note of which is dissatisfaction. Mathematical and science books, indeed, are declared admirable and up-to-date. But English composition books, with the exception of that of Mr. Huntington, an American, lead "even at the ages of nineteen and twenty to an amazing impotence of imagination, to a mellifluous rounding of sentences that mean nothing." They sacrifice naturalness to correctness. Geography books "are but collections of snippets, interesting enough, but unsatisfying and far too brief." The writer says the child would like full descriptions, but he does not make it clear how time is be found for reading them in these days of an increasing number of studies. Except Mr. Arnold Forster's volume, he thinks there is no school history worthy of the name. We should like to know what are the faults of Gardiner's *Students' History* or the recent book of Mr. Fletcher. Of literature books he makes the stock complaint that the text is buried beneath unnecessary notes and introductions, and that they are mostly unattractive, hard-cornered, ugly in colour. He excepts Mr. Verity's Hamlet. We cannot see why the Warwick Shakespeare should not be equally excepted. The causes he alleges are that labour-saving editions are everywhere in demand and that the teacher cannot be relied on to know his subject. Text-books of Greek, Latin, German, and French escape censure on the ground that the study of these languages is still under discussion. Lastly, and here we fully sympathise, "the Bible, without which English literature and a large part of English life and history cannot be understood, is outside school studies, and even a nodding acquaintance with it is becoming less and less common."

"In the 'Life and Letters' of the late Professor Cowell, just published by Messrs. Macmillan, there is," says the *Educational Times* of September, "a very suggestive remark of his on the occasion of his acceptance of the Professorship of English History in the Presidency College, Calcutta. 'One is wasted in England; not wanted. While in India everyone is wanted who can go.' We are not concerned, for the moment, with the needs of India; what we wish to emphasize is the waste involved in the deflection of a scholar of such quality as Cowell to work that might be equally well done by any other of a thousand commonplace graduates. How many of our specialist scholars are similarly wasted!" We, who are deeply concerned with the needs of India, should be grateful for Professor Cowell's early recognition of the importance of the work of Professors in India, and we should deplore the grudging spirit which sees "waste" in "the deflection of such a scholar" to India. In elementary schools it is the infant classes which require the best teachers, and if the work of Professors in India is less advanced than in England, it does not follow that that work can be done by any "commonplace graduate." India has a great need of specialists.

From the same paper we cull the following announcement :—The Education Committee of the Victoria League offers 1 prize of £10, 3 prizes of £5 each, 2 prizes of £2 10*s*. each, and 6 prizes of £1 each, for written lectures (about 3,000 words each) on the following subjects (the prizes to be awarded in December):—(1) Madras Presidency, (2) Bombay Presidency, (3) Calcutta and the Ganges, (4) North-West Frontier and the Punjab, (5) Egypt, (6) The Soudan, (7) Zanzibar, British East Africa, and Uganda, (8) Nigeria and the West African Colonies and Protectorates, (9) Quebec and Ontario, (10) Canadian Maritime Provinces and Newfoundland, (11) Manitoba and the North-West, (12) British Columbia. The lectures should be concisely and graphically written from personal knowledge of the country. The MSS. must be type-written, and should reach the Secretary of the Victoria League, Dacre House, Victoria Street, S.W., not later than November 1st.

GOVERNMENT NOTIFICATIONS.

PERMANENT NOTIFICATION.

No. 3197 OF 1902-03.

POONA: OFFICE OF THE
DIRECTOR OF PUBLIC INSTRUCTION,
18*th July* 1902.

INDIAN EDUCATION.

The Educational Department is not responsible for anything which may appear in this publication, unless over official signature.

F. G. SELBY,
Acting Director of Public Instruction.

NOTIFICATION.

"India's Greatest Educational Need," price 2 annas, and "My Duties," price 5 annas, by John Murdoch, LL.D., obtainable at the Christian Literature Society for India, London, and Madras, are recommended for libraries and prizes in Secondary Schools.

Poona: Office of the
Director of Public Instruction
21*st September* 1904.

E. GILES,
Director of Public Instruction.

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गुरुकुल कार्यालय

NOTIFICATION.

The book called "Chota Nagpore," by Mr. F. B. Bradley Birt, I.C.S., purchaseable at Messrs. Taraporewalla Sons & Co., Bombay, at Rs.9-8 is recommended for the libraries of High Schools and Colleges in this Presidency.

Poona: Office of the
Director of Public Instruction,
22nd September 1904.

E. GILES,
Director of Public Instruction.

NOTIFICATION.

The publication called "The Educational Policy of the State in India," price Re.1 per copy, by Messrs. Satakopachari & Co., of Madras, is a useful handbook for School Managers and suitable for school libraries.

Poona,
27th September 1904.

E. GILES,
Director of Public Instruction.

List of appointments, etc., in the Educational Department, from 11th September to the 10th of October 1904.

APPOINTMENTS MADE BY GOVERNMENT.

The following appointments are made :—

26th September 1904—Major Ashton Street, M.B., F.R.C.S., I. M. S., to act as Professor of Surgery and Clinical and Operative Surgery, Grant Medical College, during the absence on leave of Lieutenant-Colonel W. H. Quicke, F.R.C.S., I. M. S.

Captain T. S. Novis, I. M. S., to act as Professor of Anatomy and Curator of Museum, Grant Medical College, *vice* Major A. Street, M.B., F.R.C.S., I. M. S.

Captain C. H. S. Lincoln, M.R.C.S., L.R.C.P., I. M. S., on return to duty to be substantive *pro tem.* Professor of Materia Medica and Pharmacy, Grant Medical College.

APPOINTMENTS MADE BY THE DIRECTOR OF PUBLIC INSTRUCTION.

16th September 1904—The appointment of Mr. K. P. Jhabavala as Probationary 6th and sub *pro tem.* 5th Assistant, in the Nadiad High School is cancelled, and the following appointments are made in the Nadiad High School.

Mr. M. K. Parekh, 7th Assistant, Broach High School, and sub *pro tem.* 6th Assistant, Nadiad High School, to be 6th Assistant, Nadiad High School, and sub *pro tem.* 5th Assistant in the same school, till further orders.

Mr. N. D. Mehta, 8th and sub *pro tem.* 7th Assistant, Nadiad High School, to be 7th Assistant and sub *pro tem.* 6th Assistant in the same school, till further orders.

Mr. J. A. Sayad, Probationary 9th and sub *pro tem.* 8th Assistant, Nadiad High School, to be Probationary 8th and sub *pro tem.* 7th Assistant in the same school, till further orders.

Mr. G. P. Sutaria, 10th and sub *pro tem.* 9th Assistant, Nadiad High School, to be 9th and sub *pro tem.* 8th Assistant in the same school, till further orders.

Mr. H. A. Desai, B.A., sub *pro tem.* 8th Assistant, Telang High School, Godhra, to be Probationary 10th Assistant in the same school, but also appointed Probationary 10th and sub *pro tem.* 9th Assistant in the Nadiad High School.

17th September 1904—The following appointments are made in the Office of the Deputy Educational Inspector, Sholapur Sub-Division:—

Mr. K. G. Moralwar, Local Board Clerk and sub *pro tem.* 2nd Clerk, to be 2nd Clerk, *vice* Mr. Chougule retired.

Mr. V. R. Saswadkar, sub *pro tem.* Local Board Clerk to be Local Board Clerk.

Mr. S. B. Mungi, Head Master, Municipal Primary School, Taloda, is appointed Head Master, Practising School, Dhulia.

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GOVERNMENT NOTIFICATIONS.

24th September 1904—Mr. B. S. Gore is confirmed as 15th Assistant Master, Sholapur High School, but should continue as acting 13th Assistant, till further orders.

R. P. Raval is appointed 2nd Assistant Mistress in the Female Training College, Ahmedabad.

6th October 1904—Mr. M. S. Mudvedkar is confirmed as 15th Assistant in the N. J. High School, Karachi.

E. GILES,
Director of Public Instruction.

Poona : Office of the
Director of Public Instruction,
15th October 1904.

GOVERNMENT EDUCATIONAL LIBRARY, BOMBAY.

(NEXT TO SMALL CAUSES COURT.)

1. The following new books and fresh additions are now available in the Library.
2. The Library is open to the public every Saturday from 7 to 11 A.M. (Bombay time), and on other days by arrangement with the Curator.
3. See notice in *Indian Education* for August 1902, page 55.

M. N. SAHASRABUDHE,
Ag. Educational Inspector, C. D.

Poona, 11th October 1904.

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
	CLASS 6 :—*Arithmetic.*				
J. W. Marshall, M.A.	Arithmetic, Part I., Standards I.—II.	Marcus Ward	0	0	4
Do. ...	Do. do. II. do. III.—IV.	Do. ...	0	0	5
Do. ...	Do. do. III. do. V.—VI.	Do. ...	0	0	6
	CLASS 7 :—*Atlases.*				
	Marcus Ward's Shilling Atlas	Do. ...	0	1	0
	Do. do. Universal Atlas	Do. ...	0	0	6
	CLASS 14 :—*Copy-books etc.*				
	Marcus Ward's Improved Writing Copy-books, Nos. 1—10.	Do. ...	0	0	2 (each)
	CLASS 16 :—*Drawing, etc.*				
Ben Johnson ...	The Oriel Solid Geometry, Part I.	Do. ...	0	0	3
Do. ...	Do. do. do. Part II.	Do. ...	0	0	3
Do. ...	Do. Plane do. Part II.	Do. ...	0	0	3
Do. ...	Do. Simple Scales and Drawing to Scale ...	Do. ...	0	0	3
	CLASS 25 :—*English Language, etc.*				
H. B. Cotterill, M.A.	Selected Poems from Gray, Burns, Cowper, Moore, Longfellow.	Macmillan...	0	1	0
	CLASS 26 :—*English Readers, etc.*				
	Marcus Ward's Interesting Readers :—				
	Primer, No. I.	Marcus Ward	0	0	3
	Do. No. II.	Do. ...	0	0	4
	Infant Reader, No. I.	Do. ...	0	0	4
	Do. do No. II.	Do. ...	0	0	4
	Book I.	Do. ...	0	0	8
	Book II.	Do. ...	0	0	10
	Book III.	Do. ...	0	1	0
	Book IV.	Do. ...	0	1	3
	Book V.	Do. ...	0	1	4

Author.	Title of Work.	Publisher.	Price.		
			£	s.	d.
	Marcus Ward's Oriel Readers:—				
	First Infant Primer	Marcus Ward	0	0	4
	Second do. do.	Do.	0	0	4
	Book I.	Do.	0	0	8
	Book II.	Do.	0	0	9
	Book III.	Do.	0	1	0
	Book IV.	Do.	0	1	3
	Book V.	Do.	0	1	6
	CLASS 30:—*Geography, etc.*				
	The Oriel Geographical Readers:—				
	Book I.	Do.	0	0	8
	Book II.	Do.	0	0	9
	Book III.	Do.	0	1	0
V. T. Murchi	The Globe Geography Readers Senior	Macmillan	......		
H. B. M. Buchanan and R. R. C. Gregory.	Junior Country Reader, Part II.	Do.	0	1	2
H. B. M. Buchanan, B. A.	Senior Country Reader, Part III.	Do.	0	2	0
	CLASS 32:—*Geometry.*				
S. Barnard, M.A., and J. M. Child, B.A.	A New Geometry for Schools	Do.	0	4	6
C. H. Alcock	Theoretical Geometry for Beginners	Do.	......		
S. Barnard, M.A, and J. M. Child, B.A.	A New Geometry for Junior Forms	Do.	.....		
H S. Hall, M.A., and J. M. Child, B.A.	A School Geometry, Parts I., II., III.	Do.	0	2	6
Do.	Do. Parts IV., V.	Do.	0	2	0
C. Godfrey, M.A., and A. W. Siddons, M.A.	Elementary Geometry	Cambridge University Press.	......		
	CLASS 38:—*History, etc.*				
	The Oriel Historical Readers:—				
	Book I.	Marcus Ward	0	0	8
	Book II.	Do.	0	0	10
	Book III.	Do.	0	1	0
	Book IV.	Do.	0	1	3
	Book V.	Do.	0	1	3
	CLASS 57:—*Physics.*				
John Bidgood	Elementary Physics and Chemistry, Part I.	Longmans	0	1	6
	CLASS 64:—*Science.*				
T. H. Huxley and R. A. Gregory	Physiography	Macmillan	......		

EDITORIAL NOTICE.

Correspondence and literary contributions are invited from all who are interested in the educational problems of India. Accepted contributions will be **paid for.** *The moderate and well-worded expression of individual opinion will be welcome, and consideration will be given to all criticism which is sound and really genuine—containing nothing offensive, and not being the expression of personal grievance. Stamps should accompany the MS. if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss. All literary communications should be addressed to—*

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